A Lecture
ON THE
SHOULDER-GIRDLE AND ITS MOVEMENTS.

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THE shoulder-girdle in mammals is by no means so fully developed as in the majority of other vertebrates. The scapula is the only element of it which is constantly well developed. While the suprascapula is represented, if at all, by nothing more than a cartilage or epiphysis, the coracoid is reduced to a mere process of the scapula, save only in the monotremata; and the clavicle, although well developed in some widely separate forms, is sometimes absent altogether, and sometimes represented by a mere vestigial nodule. I have expressed a doubt as to the morphological correspondence of the cartilage or epiphysis of the vertebral border of the scapula with the suprascapula, partly from recollecting a curiously deformed human fœtus added about twenty years ago to the anatomical museum of the University of Edinburgh, in which the scapulæ were united to the spines of the cervical vertebræ by a pair of elongated bones. But there are some mammals in which the circle of the shoulder-girdle is completed normally on the dorsal aspect by means of ligament. The most curious instance of this is in the mole, which has the shoulder-blades elongated into three-sided shafts, the posterior ends of which are united by a short ligament which crosses over the spinal column, quite unconnected with either it or the deep muscles, an arrangement which, while it prevents them falling asunder, does not interfere with their backward and forward movement on the fulcrum of the clavicle when the animal grubs with its paws in the earth. A less remarkable arrangement where there is no clavicle is illustrated in the horse. In it a stout ligamentous band, the representation of part of the trapezius muscle of man, but containing no muscular substance, attaches the base of the spine of the scapula to the withers, and causes the movements of that bone to revolve round it. Such a state of matters is obviously well suited to the wants of an animal without clavicle and with habits of swiftness, allowing as it does free play to the forward and backward sweep of the lower or humeral end of the blade, while the pivot of the movement is removed to the upper end. In this instance, as in general in those mammals which have no clavicle or none but a sesamoid rudiment, the shoulder-blade is directed from back to breast, so as to rest its glenoid fossa over the humerus, and serve as a fulcrum for the backward and forward movement of that bone in progression; but in those in which the clavicle is developed, the glenoid fossa is thrust outwards, and the scapula is pressed against the clavicle in those movements of grasping which the presence of a clavicle makes possible in perfection. It is curious to note that in the carnivora, while many genera have a notable though in all cases imperfect power of outward and inward movement of the forelimbs, the clavicle exists in most cases in a rudimentary form, but never comes in contact with either scapula or sternum, and cannot be of the slightest mechanical service.

The question may naturally be asked, seeing that those mammals without clavicles, or which have them rudimentary, include those which use their forelimbs most of all for support and locomotion, How are their bodies supported between their shoulders? The answer is that they are supported by means of muscles; being slung between the serrati magni muscles. Nor is this any true exception to the general rule that muscular action, being an expensive thing, is never made use of in animals, where ligament will serve the purpose; for though the substance of the sling is muscular, it is not muscular action, but ligamentous, which is employed. The experiment of Weber teaches that it is when in an unstimulated condition, not when consuming fuel in the exercise of its function, that muscular fibre offers the greater resistance to being stretched beyond its natural length; and this action of the serratus magnus in quadrupeds is not the only distinct instance of the ligamentous action of muscles being called into play when they are vitally at rest; for, as I pointed out ten years ago,[1] the shoulder-girdle in the human subject is similarly maintained in its place by the trapezius, and, when that muscle is obliterated, falls downwards and forwards on the chest.

At the articulation of the clavicle with the sternum, the clavicular rises above the level of the sternal surface, and the two surfaces are separated by the strong interarticular fibro-cartilage, which is attached at its upper border to the clavicle, and at its lower border to the cartilage of the first rib. Perhaps the whole articulation deserves more careful attention than is usually given to it; for although it is subject to a certain variety, the interarticular fibro-cartilage being sometimes perfect and sometimes more or less deficient, and the sternal surface in some instances much smaller than in others, the sternal surface especially has marked peculiarities, easily studied in instances in which it is well developed. The sternal surface may be described as, on the whole, concave from above downwards, though somewhat beveled at the back of the upper margin; and in the middle it is concavo-convex from behind forwards, while inferiorly it is flattened. The whole surface is, in fact, divisible into two parts: an upper part, convex in front, but showing a depression behind; and an inferior flat part, most developed in front. The concavity referred to at the back part is sometimes scarcely recognisable, but in the best-marked specimens it forms a distinct depression with the beveled uppermost edge separated from it by a convexity which becomes more prominent as it sweeps forward in front of it and dies away in a flat surface below. The clavicular surface, much more elongated from before backwards than the sternal, is at its back part, where it is continued on the projecting posterior angle of the bone, slightly prominent, and plays against the concave hinder portion of the sternal surface; inferiorly it becomes abruptly convex, and glides on the attachment of the fibro-cartilage and on the costal cartilage beyond. The joint is surrounded by a strong capsule, which is, however, sufficiently weak in some parts to allow redundant portions of synovial membrane to be sucked in between those parts of opposed surfaces which in any position are not in accurate contact. The fore and back parts of this capsule constitute the anterior and posterior ligaments, while above and below are two ligaments requiring more special notice. The ligament above the joint is called interclavicular, because many of its fibres, passing from the upper border of one clavicle, instead of being fixed to the sternum, arch onwards to the clavicle of the opposite side. It is continuous with the posterior ligament, and its fibres are directed forwards as well as inwards. The ligament below the joint is the costo-clavicular, and lies edgewise to it, its innermost fibres being close to the posterior ligament, and its outer fibres, which are much longer, extending as far out on the clavicle as the inner end of the origin of the subclavius, and there connected with the costo-coracoid membrane—circumstances notable as suggesting an important ligamentous function of the subclavius. When the shoulder is forcibly depressed, as in raising a weight, the convexity of the lower part of the clavicular surface is pressed against the lower division of the sternal surface and the attachment of the intervening fibro-cartilage; that structure and the interclavicular ligament are put on the stretch by the revolution of the clavicle round the convexity of its surface; while between the fibro-cartilage and the upper part of the sternal surface are invaginated plications of synovial membrane. When, on the other hand, the shoulder is elevated as in pushing, folds of synovial membrane are drawn in to fill a gap between the attachment of the fibro-cartilage and the lower border of the clavicular surface; and the costo-clavicular ligament, subclavius, and costo-coracoid membrane are put on the stretch.

Thus in the sterno-clavicular articulation there is beautifully exemplified a principle of construction seen in many other joints—namely, that instead of the surfaces being conformable in their whole extent, rubbing one against the other throughout their contact, there are areas which are brought into apposition in certain positions of stability and are separate in other positions, just as portions of a wheel come without friction into contact with the ground, and similarly retreat from it. Friction is confined to the gliding parts between the areas referred to, and thus the smallest possible amount of friction in movement is combined with the greatest possible stability in particular positions. But,

[1] Journal of Anatomy and Physiology, 1871.

besides the upward and downward movement, the clavicle is permitted a backward and forward movement round its sternal articulation, and this is much more considerable when the shoulder is elevated than when it is depressed. In its most completely depressed position the outer end of the clavicle is thrown forwards and cannot be moved backwards in the slightest without a marked degree of elevation—that is to say, without shifting its fulcrum upwards on the sternal surface. As, however, the sternum in a well-built man standing erect is in a sloping position, it will be well understood I do not mean that in such a position the shoulders are actually raised when thrown backwards. It is only meant that the clavicle moves in a direction which would be upwards and backwards were the sternum vertical. So long then as the arm is hanging at rest over a vertical sternum the lower parts of the surfaces of the bones are those in use, and the joint is in one of its positions of fixity, the fixity being secured by the clavicle resting immediately beyond the joint on the front of the first costal cartilage. But when the shoulder is slightly raised, or the lower end of the sternum thrown forward, which comes to the same thing, a large amount of backward and forward movement is allowed, the clavicle moving across the convexity of the sternal surface. When the clavicle is thrown as much forward as possible in this position, as in pulling a rope, the part of the sternum in front of the convexity is pressed on, and there is a gap behind; when, conversely, the clavicle is thrown back as far as possible in pushing against an object in front there is a gap in front, and this being a position in which strength of construction at the joint is required it has a large amount of stability given to it by the prominence at the back of the clavicle being pressed forward into the concavity at the back of the sternal surface, and against the convexity in front of this, which protects it from dislocation forwards. The beveling at the top of the sternal surface, which has been alluded to as not constantly present, but which sometimes forms even a distinct facet, comes into play when the arm is raised to its utmost, as in stretching towards an object above.

At the outer end of the clavicle, the acromio-clavicular articulation has its surfaces very small, surrounded with a strong ligamentous capsule, and with a more or less imperfect interarticular disc interposed between the surfaces. The joint permits revolution of the scapula in every direction, not prevented by the presence of the walls of the chest, or the contact of the coracoid process with the clavicle. The angle between the scapula and clavicle is opened to its utmost when the shoulders are thrown back and the arms allowed to hang, while it becomes most acute when the shoulder is shrugged. There is, then, in the passage from the one of these positions to the other a horizontal movement of the acromion round the clavicle. But there is likewise a vertical movement, for when the arm continues pendent and the shoulder is raised, the clavicle rises, while the acromion continuing horizontal is displaced from its position relatively to the clavicle in a downward direction; but when the arm is elevated, the trapezius acting, and the levator anguli scapulæ relaxed, the acromion revolves upwards on the clavicle.

The circumstances in which the coraco-clavicular ligaments are tightened are worthy of mention. The trapezoid ligament is fully stretched in pushing outwards against an obstacle, with the humerus pressed against the glenoid cavity, and in pulling across the middle line, as in drawing a bow-string. In those actions the conoid ligament is slack, except when the arm is much elevated, and the scapula thereby made to revolve, so as to separate the coracoid from the clavicle; then the inner fibres of the conoid are stretched. The conoid ligament is stretched in pushing forwards; the humerus being then pressed against the acromion and the tightened posterior fibres of the capsule of the shoulder-joint, and thereby pushing back the whole scapula, coracoid process included. The conoid ligament is likewise stretched and the trapezoid relaxed in pushing downwards, and in hanging by the arms from above. In pulling from the side to the middle line, both the conoid and trapezoid are relaxed, and the strong acromio-clavicular fibres stretched.

It is in pushing downwards and in shrugging the shoulder that the coracoid comes into contact with the clavicle, and this appears to me to have a certain surgical interest in connexion with fractures of the outer end of the clavicle. Surgeons are agreed that this injury is much more frequently produced by direct violence, and if it be asked why does the fracture always take place close to the trapezoid ligament, and most frequently internal to it, I think that one must not only note the flattened form of the outer end of the bone, but must answer that it is broken upon the coracoid process, precisely as the patella is fractured transversely by its middle facets being pressed against the femur when the quadriceps muscle and ligamentum patellæ are pulling at nearly a right angle one to the other, or as a stick held at both ends may be broken across the knee. The rarity of the occurrence of fracture of the outer end of the clavicle from falling on the hand arises from the circumstance that in falling with great violence the arm is usually outstretched, while it is only when the humerus is at less than a right angle with the humerus that the coracoid process is pressed against the clavicle. That is precisely what happens when the victim lifts his shoulder in wincing from an expected blow, but is not likely to occur from a fall, except when descent takes place vertically, feet downmost, through a hole, and the only support to clutch at is below the level of the hands. The elevated position of the arms in falling is favourable to the occurrence of the inner fracture of the clavicle, because the direction of the resistance of the ground to the outstretched hand is such as to give a further bend to the great curve of the bone.

ABSTRACT OF THREE

Clinical Lectures,

WITH MICROSCOPICAL DEMONSTRATIONS,

ON

TRUE LICHEN AND ITS VARIOUS FORMS.

Delivered at University College Hospital,

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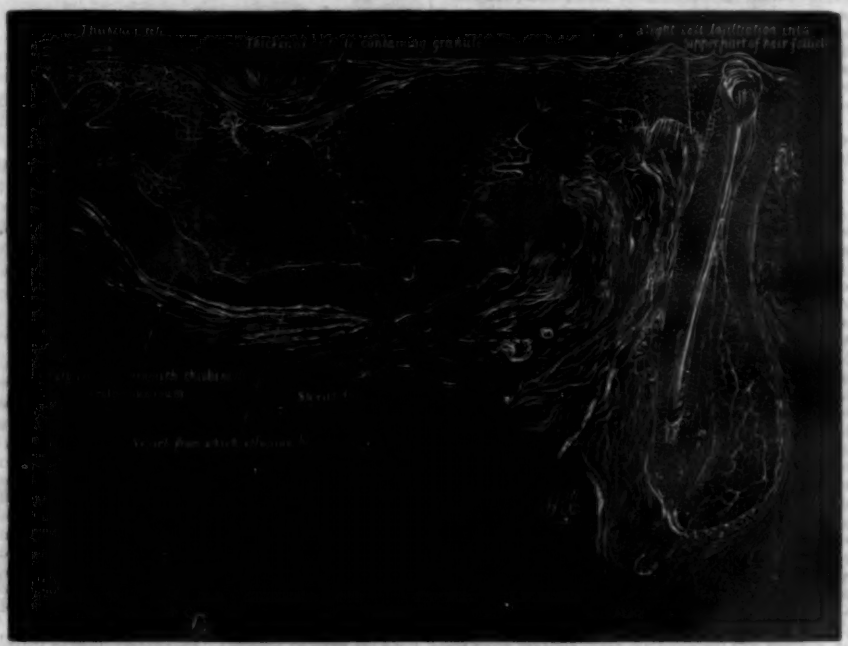
LECTURE I.

ADOPTING Hebra's definition of Lichen as "those cutaneous affections which are attended by papules the result of a definite morbid process, and undergoing no metamorphosis in their entire course," I shall include under this definition—1. Lichen Planus or Ruber: (*a*) general; (*b*) limited. 2. Lichen Scrofulosorum. 3. Lichen Pilaris. I shall also allude to some other papular diseases which are still classed among the lichens by some authors.

1. *Lichen planus.*—Having discussed the clinical features, I will now pass on to its histology and pathology. All writers have laid great stress upon the implication of the hair follicles as being the especial feature of the disease, and, moreover, that the process is a deep one leading to an hypertrophy of the root sheaths about the papilla of the hair, so that the hair root has a knobbed appearance like the lobes of a racemose gland. Hebra, Neumann, Kaposi, and Biesiadecki have examined portions of skin from Lichen ruber, but they appear to have all been chronic cases, and the sections I show you now are, I believe, the first taken from recently formed papules. Now, I do not dispute that in the advanced stages the appearances are as Neumann describes, and that some, at all events, of the hair sacs and root sheaths do undergo hypertrophic changes. These, however, are but sequential to the early part of the process, and do not represent the true pathology of the disease. In addition to the sections, I have placed under the microscope hairs pulled from the centre of lichen papules, in which atrophy not hypertrophy, is the feature, while other hairs, to which the internal root sheath is still attached, appear unaltered. Dr. Fox, on the other hand, figures a hair which he removed from a papule, in which there was hyperplasia of the attached root sheaths, but the hair was unchanged. In spite of this I believe I can adduce clinical as well as microscopical evidence to show that, so far from the hair follicles being the chief seat of the disease, they are in most cases rather the exception than the rule, and, so to speak, almost an accident of the disease. In saying this I am, I know, diametrically opposed to the hitherto received views, but the facts appear to point strongly to this conclusion. The skin on which these re-

marks are founded was taken first from the front of the thigh in the case of a woman aged forty; secondly, from a man aged fifty-six who had had an infiltrated patch on the side of the leg just above the ankle for some years, and while under observation a copious outbreak of papules appeared on the forearm, especially on the front, the sides of the legs, the thighs, flanks, and lower parts of the abdomen. Portions of skin with papules were removed close to the infiltrated patch, and from the front of the forearm. I have examined upwards of a hundred sections made from these portions of skin, and you can verify the following observations for yourselves. First, in the skin taken from the thigh you will see that the papule is formed by a cell effusion from one of the vessels of the superficial plexus pushing up the superimposed epithelial layers. This cell effusion comes entirely from the upper wall of the vessel, there being no cells or other changes below, and in this particular papule the cells show an indication of being in lines, as if streaming directly away from the vessel; several papillæ are involved in this process, and here and there a sweat duct may be traced passing through the papule, and generally one can be made out in the centre. The cell effusion terminates abruptly at the sides. The



papillæ are somewhat flattened out, and the cells of the rete mucosum have undergone a moderate amount of proliferation; the horny layer is but little changed, there is a slight loosening of the upper layers over the centre of the papule, but that is all. You will note that in this case the cell effusion forms three-quarters of the papule. In the skin taken from the forearm of the man the appearances are somewhat different, owing to the relative proportion of the component parts of the papule being altered. The greater part of the papule is not here made up of the cell effusion, but of the enormously proliferated rete mucosum, which is, in its turn, three times as deep as the cell effusion. The cells at the lower part of the rete are flattened instead of being perpendicular, while the upper layers, the stratum lucidum, and granular layer are also abnormally distinct. The horny layer is only thickened over the centre of the papule, and shaped like a broad inverted cone, which fits into a corresponding depression of the rete like a plug. Now if this horny layer should be thrown off, as we know is frequently the case, we should get the appearance of umbilication, which is sometimes seen, and is usually explained as the open mouth of a hair follicle, and may be true of some papules. Scattered through this layer are some minute refracting globules, which, Neumann states, resist ether or chloroform; their nature is not at present explicable. Externally, the horny layer is at the same level in the centre as at the sides. The apex terminates in the orifice of a sweat duct, which can be traced through the papule, and for a short distance beyond the lower side of the vessel. The cell effusion does not terminate so abruptly as in the first series, but embraces two or three papillæ which are enlarged both laterally and vertically, the interpapillary processes coming down lower than usual. The papillary vessels are abnormally distinct. I have chosen the section now under the microscope, because close to the papule a complete section of a perfectly normal hair and its sebaceous gland is seen. There are a few cells from the adjoining papule immediately adjacent to the hair sheath, just beneath the rete, but nothing more. On the other side of the hair there are no cells in immediate relation to it, but two of the papillæ just beyond it contain a little cell effusion, and there are a few cells also, about the upper part of the sweat duct, which comes down a little way from the hair. Except that some of the orifices of the hair follicles are funnel-shaped and tightly packed with horny scales, this is all the change that any of the sections show in the hair follicles. The difference between the first and second series of sections may be explained by the supposition that the processes differed in intensity; consequently, in the first series, where the inflammation was more acute, the cell effusion was the main feature, while in the second, of less intensity, epithelial proliferation characterised them. The third series were made from the skin taken at the border of an infiltrated patch. Here the cell effusion, though limited below by the superficial vessel as before, was much more diffused laterally; all the vessels of the affected papillæ were markedly dilated. The rete was much increased in depth; but the horny layer very little, if at all, thickened. The interpapillary processes were much larger, and some broader; and thus the papillæ also were enlarged in length and breadth. On the left side of the section the commencement of the infiltration is visible, accompanied by the downgrowth of the rete mucosum. No changes in the hair follicle were observed in this series; indeed, only an occasional transverse section of a hair was observed. Now, from the sections alone, all that can be actually proved is that the process is a superficial inflammation in the early stage, and that it may occur independently of the hair follicles. Still, I was struck by the fact that in a disease in which the hair follicles were supposed to play the most important part, skin taken from three regions of the body showed no marked perifollicular inflammation, and

I was thus led to study again the clinical aspects and the analysis of cases, and the consensus of authorities revealed the curious fact that this so-called follicular disease most frequently attacked the regions where there were the fewest hairs, such as the front of the forearms, especially near the wrist, the flanks, inner side of knees over vastus internus, and the side of the legs, especially above the ankles; to say nothing of the palms, soles, nails, and mucous membranes being occasionally involved; while only in a small minority were the backs of the forearms and hands, and other situations where the small hairs are abundant, involved, many of these cases having begun in the more usual situations, and subsequently implicated the other parts. Since these considerations were forced upon my notice I have only had the opportunity of examining two cases; one that we have seen to-day, the other a mild case in private, a man in whom there was a single patch, the size of the hand, below the knee on the inner side and back of the leg; about a finger's breadth of the patch encroached on the hairy part of the leg, the rest was on the nearly hairless part; there were a few papules also on the outer side of the leg above the ankle. In both these cases I searched carefully for papules situated round the hairs, and in neither were there well-marked instances of it. There were, comparatively speaking, a few hairs with some redness round, and some broken short, as though their nutrition had been interfered with, but among the number of well-marked papules, I could find not one with the hair in the centre, though it was quite common to find a well-developed papule with a healthy hair almost touching it.

Of course, there are plenty of cases where the hairs are more implicated than in these two; but even then I am inclined to think that it will be found that follicular papules will be far outnumbered by the papillary ones. Even if in some cases this were not so, and the follicular inflammation predominated, I still contend that the disease stands in relation to the hair follicles very much in the same position as eczema, in which, though usually a disease of the flexor surfaces involving all the skin structures, it sometimes picks out the hair follicles as the seat of the inflammatory process. These cases were formerly reckoned among the lichens, but are now recognised as mere varieties of eczema. I have pointed out to you that a sweat duct can generally be traced in the centre of the papule, and two or three may be involved in it, and that the apex of the cone of the corneous layer coincides with the orifice of the sweat duct. Is this an accident of situation, so to speak, or has the sweat gland or its duct anything to do with the production of the papule? With regard to the sweat gland, I regret to say that the skin was not removed sufficiently deeply to speak with absolute certainty about many of them; all that I observed were healthy, but I am inclined to think, from the frequency of its central position, that it constitutes a determining point for the formation of the papule round it, just as the hair undoubtedly does in some cases, though, I contend, not so frequently as general opinion would ascribe to it. There is another fact which tends in this direction. Mr. Hutchinson, with his usual accuracy of observation, has noticed that wherever the clothes are fastened in close contact with the skin, such as the waist, the site of the garters, the pad of the truss when a hernia exists, &c., there the papules are most thickly distributed. In the case before you this is very noticeable below the knees, where the garters are fastened. Mr. Hutchinson ascribes this to pressure. May it not be, however, that the increased heat produced by close contact is the real agent? The general conclusions I would draw, therefore, are—

1. That the process at its commencement is entirely superficial.

2. That it consists of an inflammatory effusion from the superficial plexus of vessels, the cells in the horizontal vessels coming only from the upper wall.

3. That all the vessels of this plexus are notably dilated and the papillæ enlarged by down-growth of the interpapillary processes.

4. That all the epithelial layers undergo proliferation, those in the rete mucosum taking the most prominent part in the formation of the papule.

5. That the involvement of the hair follicles is not an essential nor the main feature of the process in most cases; but—

6. That the sweat ducts have more often an influence in determining the position of the papule.

"TREATMENT OF PAIN BY MECHANICAL VIBRATIONS."

BY J. MORTIMER GRANVILLE, M.D.

THE publication of certain results obtained in an investigation which I have been pursuing for some years past having been to a large extent anticipated by a paper which appeared in *Le Progrès Médical* of the 5th inst., from the pen of M. Boudet de Paris, ancien interne des hôpitaux de Paris, I have no alternative but to bring my researches, together with such *facts*, real or imaginary, as I have succeeded in eliciting, under the notice of the profession here and on the Continent. Indeed, I owe some explanation to many friends in England and in Paris for having so long delayed to report the progress of my experiments. Nevertheless I break silence thus early with the greatest reluctance, and only under the pressure of circumstances. As regards the accident of "forestalling," if I am not mistaken M. Boudet de Paris will have greater cause than I have to regret what I cannot but feel is the premature announcement of a discovery. On the 5th of August, 1878, Professor Brown-Séquard wrote me as follows:—"If it (the instrument employed in these experiments) has the power you state, you have certainly made a very important discovery." I could not but feel that there was a virtue in that "if" to enforce reserve until other judgments besides my own were fully satisfied. Such grave responsibility attaches to every member of the profession who ventures to suggest a new, or seemingly new, method of treatment, and who dares to hold out a hope of remedy or relief for the miseries of mankind, that I, for one, must confess to a great shrinking from the hazard of rushing into print prematurely. This feeling alone has induced me to keep silence during the last three or four years, and I am convinced the same motive has influenced the several physicians who have kindly tried my method and employed my Percuteur, to wait until convinced of their validity and value before giving to either the sanction of their authority. Among the gentlemen to whom I have submitted my speculations, and shown my instrument, I may mention Professor Brown-Séquard, Professor Ball, and Dr. Oscar Jennings of Paris, and Drs. Ringer and Gowers of London. These names are in themselves sufficient to guarantee that if the results obtained by experiment had been such as to establish my conclusions they would long since have been announced, and unless I am greatly mistaken the results recorded by M. Boudet de Paris cannot, in any therapeutical sense, be more trustworthy than my own. I will now tell the story of my investigations, and thus mark the point reached in the search for a new remedy.

As far back as 1862–3 I was, in the course of certain clinical studies of mental and sensory phenomena, induced to believe that many forms of the sensation we call "pain" were, in fact, unnecessary, and might be *interrupted* by appropriate mental and physical methods and appliances. My first observations were made in connexion with the paroxysmal, or recurrent, pains accompanying the uterine contractions in the natural process of parturition. On the 4th of May, 1864, Dr. Grailly Hewitt was good enough to communicate the results of my experiments and to show certain apparatus, to the Obstetrical Society of London. In a paper "On the Application of Extreme Cold as an Anodyne in the Pain attendant on Parturition," a short abstract of which will be found in THE LANCET of July 9th, 1864, I contended that the sensations of pain experienced by the parturient woman were *not* invariably synchronous with what, for want of a better name, we term the pains of labour; and from this and other premisses—for example, the circumstance that they are commonly "referred" to regions more or less remote from the contracting uterus, or the dilating external passages, in which the real seat of the pain might have been supposed to be located—I deduced that the pain attendant on labour is *neuralgic* in character. I had constructed small boxes or chambers of such sizes and shapes as to admit of their being applied to the *supposed* seats of

the pain. These were filled with freezing mixture, and the effect of sudden contact in some thirty cases was to arrest the sensation of pain without in the least degree lessening the force of the uterine contractions. The experiment was of course simply interesting as bearing on the *nature* of the pain, as this process was too troublesome to admit of its adoption in practice; albeit some of the persons on whom I had the opportunity of trying my method experienced such striking relief that on subsequent occasions I believe they asked that the measure might be repeated. Having so far persuaded myself that this form of pain was neuralgic, and that if the nerve affected could be strongly impressed, so as to *change* its state of irritation, the pain would cease, I proceeded to try the effect of rapidly tapping the skin over the fifth nerve in ordinary facial neuralgia with a Bennett's percussion hammer, using the ivory pleximeter as a shield. The results obtained by this method were very remarkable. Still, I simply thought of arresting the morbid action by *shock*. Later on—it is only possible to sketch the outline of the inquiry—I was led, by the light thrown on Newton's doctrine of concords and discords, by Grove's generalisation as to the correlation of forces, and more recently by Professor Tyndall's beautiful series of experiments with sensitive flames and musical burners, to believe that the results of the tapping were not, like the interruption with shock produced by the sudden application of cold, due to a mere arrest of the painful state of irritation into which the nerve had been thrown, but were, in fact, brought about by the extinguishment of a morbid—that is, either inordinate or disorderly—set of vibrations by the superimposition of another, incompatible or discordant set of vibrations, mechanically produced. With this notion I set to work to devise an instrument which should give a known number of blows per second, and thus admit of this new phase of the inquiry being pushed farther. Such an instrument was made for me at the establishment of Mr. Streeter, of New Bond-street, from a sketch and specification dated Jan. 5th, 1877. With the "percuteur" thus made, and others by M. Collin, of Paris, results which I would characterise as *suggestive* rather than *conclusive* have certainly been obtained. They are, in brief, as follows:—

The sensation produced by the application of the instrument over a healthy nerve, so situated as to be readily thrown into mechanical vibration, closely resembles the effect of a weak dose of the interrupted current of electricity, and if it be prolonged the vibration extends its area, exciting first formication or tingling, then a sensation of numbness, and finally some twitching of the superficial muscles. A nervous headache, and even migraine, may be induced by the application of the percuteur to the frontal ridges or the margins of the orbit. By the intervention of a thin plate of metal, or even stiff paper, the vibration may be readily propagated through a considerable region of the surface of the body, and in time the deeper muscles will frequently begin to act. I have even produced an involuntary movement, not unlike tendon-reflex, by applying the percuteur for some time over the tendon of the rectus femoris above the patella. Still more notable has been the fact that by laying a sheet of paper over the abdomen, and moving the percuteur slowly in large circles round the umbilicus, the intestines have *seemed* to be excited to vermicular movement, and the bowels commenced to act. These results have not been constant, but have occurred with sufficient frequency to indicate that the experiments already made are worthy to be repeated.

With respect to the relief of neuralgic pain, the operations of the instrument are certainly very remarkable, but not, in my judgment or in that of other observers, such as to justify the assertion that it constitutes an appliance for the relief of pain. In some instances—pretty numerous—the pain of neuralgia in the branches of the fifth has been quickly arrested by its application, and has not soon returned, or, if it has done so, has again unmistakably yielded. In other instances the sensation has been aggravated by the augmented state of vibration into which the nerve has been thrown through the shaking of the adjacent tissues. And here I must mention a point to which I attach the greatest moment, and which, I think, will hereafter be found to prove the key to the whole phenomena. A comparatively high number of vibrations per second seems to relieve a dull aching, a "massive" or grinding pain, while an acutely pitched and quick pain is most frequently arrested by a slower movement of the instrument. If I may step beyond the province of a simple reporter of clinical phenomena for one moment, I will take leave to say that I think these results go to support my theory that it is by the introduction of *discord* into the rhythm of the morbid vibrations of the painful "state" the change which brings relief is effected. To apply the percuteur with a high rate of blows per second will aggravate the morbid state when that is itself a series of rapid vibrations, and in the same way a low speed of percussion increases, instead of relieving, the pains of a low-pitched and slow "boring" or "grinding" sensation. Acute or sharp pain is, I believe, like a high note in music, produced by rapid vibrations, while a dull, heavy, or aching pain resembles a low note or tone, and is caused by comparatively slow vibrations. A slow rate of mechanical vibration will therefore interrupt the rapid nerve-vibration of acute pain, while quick mechanical vibration more readily arrests the slower. The aim—if I am right in my conjecture—should be to set up a new set of vibrations which shall interrupt or change the morbid set by introducing discord. Failure in the application of this principle will, I believe, be found to explain the failure to put an end to the pain; and I have, accordingly, set as much scientific value on my failures as on my successes.

My percuteurs are all defective in one particular: although they consist of a simple train of cogged-wheels worked by a spring and acting on the lever, which carries an ivory hammer, and are provided with an indicator, which shows the speed, and a screw movement to control it, they do not obey the will of the operator, because the slightest pressure of his hand shortens the arc in which the hammer works, and proportionally accelerates the stroke. M. Collin has modified my instrument, but he has not, so far as I am aware, entirely remedied this defect.[1] If M. Boudet de Paris can so improve his instrument as to obtain control of its movements and to propagate a *known* set of vibrations, he may succeed better than I have done; but I should be glad to find that the result could be obtained without the use of electricity, as it is important to the scientific interest of the instrument—and as yet it cannot, I am convinced, be said to have a therapeutic value,—to show that the vibrations are purely mechanical, and propagated through the tissues by a force acting externally. It would be one thing to induce change of the organic vibrations by internal force, and quite another to overpower the internal movements by force operating from without. The result may be the same, but the two methods of reaching it are essentially different.

That all nerve action is vibratile, and that the neuralgic state consists essentially in an abnormal set or series of vibrations into which the nerve has been thrown—perhaps by a jet of cold air, or a mechanical or chemical irritant—I have no doubt. That this state may be changed by mechanical vibrations propagated to the nerve-sheath and its contents through the adjacent tissues I am convinced. I have not, however, as yet, got one step further than persuading myself that these are genuine propositions, and capable of demonstration by experiment—to wit, the cessation of neuralgic pain and the induction of the neuralgic state generally by mechanical vibrations, and the relief of these conditions, when they exist, by the same method. The essence of the process is disturbance and change of the rhythm. When I began to study the effect of cold, I thought the results obtained were reached by deadening the nerve or "lowering its sensibility," as we say; but I soon found that the effect was proportioned to the intensity of the shock produced by the sudden contact with the cold substance, not the duration of the chilling process. When cold gives relief by its continuance, rather than instantly on its application, I think that is because the morbid vibrations of the nerve cannot, for some physical reason, be interrupted by shock; possibly the nerve is situated too deeply, or is covered by dense tissues, or lies so loosely amid its surroundings as to be practically insulated, and the morbid vibrations are not arrested until the cold contracts the surrounding tissues, and causes them to mechanically grip the terminal twigs of the nerve which is vibrating painfully. In some instances the percuteur is so powerful as to arrest the morbid vibrations on one side and propagate a painful set of vibrations through the centre to the other side. This may strike the reader as a mere assertion, but I am persuaded it will be found to be borne out by experiment. If I am not greatly mistaken, the percuteur, or some more perfect

[1] The French instrument may be seen at Messrs. Weiss and Son's, 62, Strand.

mechanical vibrator, will do all that "metallo-therapy" has achieved in the same class of cases. We do not sufficiently appreciate the effect of subtle or subtily-applied forces acting on the organism. When the so-called mesmerist induces a state of hypnotism in his patient by simply blowing on the face, or when by "passes" he impresses the retina, he acts *physically* on the terminal twigs of highly sensitive—and generally educated—nerves, and induces a set of actions which, though notable in themselves, are no more mysterious in the manner of their production than the involuntary strong muscular action excited by the "tickling" of a hair or a feather, or the crawling of an insect. As a matter of fact, the surface is generally more *powerfully* impressed by these minor applications of mechanical force than by the greater. If you touch an exposed sub-cuticular surface lightly you give extreme pain; if you grasp it somewhat firmly you cause less suffering. This is quite as likely to be because, in the first case, the terminal twigs of the sensitive nerves are set vibrating, whereas in the latter vibration is prevented, as due to the local blood-change to which these results are commonly attributed. While a poultice is moist, and clings to the surface of a sore, it soothes by holding the nerve-fibres still; when it begins to dry, and they are liberated, the poultice becomes an irritant. The physical basis of the so-called hysterical state, or the peculiarity of nervous organisation which predisposes to hysteria, is, I think, simply a class or type of structure which renders the nervous elements especially liable to vibrate in their sheaths, and thus exposes them to the risk of falling readily into any rhythm which the will, the physico-mental environment, or perhaps even the proximity of similar structures vibrating in other bodies characterised by the same physical organisation, may suggest. If musical burners supplied from different reservoirs of gas will presently vibrate in concord; if strings or reeds vibrating at the same time, though a short distance apart, will fall into harmony, why is it unlikely that nervous organisms possessing the same qualities of physical structure should exhibit a corresponding affinity? Science points clearly to physical states as the basis of nervous and mental phenomena. The female organism is characterised not inaccurately, though popularly, by the phrase "finely strung nerves." It is literally *mobile*, and it is chiefly among females the phenomena of hysteria, and the allied states, are observed. When the symptoms and conditions so designated do occur in the male, the individual organism is generally of a feminine character.

In conclusion, I would venture to predict that it will be found that nerve action, both normal and abnormal, consists of vibrations, and that *other* mechanical vibrations set up and propagated by any mechanical apparatus or appliance, acting from without and propagated through the tissues, may be made to modify the internal movements; that normal vibrations consist of movements of the constituent parts of a nerve within its sheath, and that when these become inordinate or disorderly they are propagated to the sheath itself, and then become painful; that under this last-mentioned condition the wave of vibration is likely to be propagated along the sheath of the nerve, and through it to the sheaths of other nerves with which the first in order of disturbance may be mechanically related, either by direct contact or through intervening tissues; that the action of irritants applied to the skin is mechanical, producing contraction of the tissues, and either first gripping and then relaxing the terminal twigs of the nerves, thus throwing them into mechanical vibration, or so changing the constitution of the bed in which these terminal twigs lie as to oppose a mechanical obstruction to their natural vibration, and thereby convert it into a morbid rhythm. This, indeed, has been demonstrated by Dr. Ringer, in his classic treatise on Therapeutics, in connexion with the *modus operandi* of blisters. These may be set down as crude speculations, but they are the results to which experiment and common-place reasoning point, and they are in harmony with a view of the phenomena of nerve-action and pain which the inquiry I am pursuing forces upon me, and by which nearly all the wonders of the hysterical school of medical philosophy may be explained. I cannot claim to have discovered a "cure" for neuralgia, or even a *certain* method of treatment for its relief. The time has not arrived when it may be possible to commend this *new method* to the notice of the medical profession as a known agency for the alleviation of suffering; but as the facts have been prematurely published I think the method should be tried.

Welbeck-street.

ON A NEW METHOD OF SUPPLEMENTARY ALIMENTATION.[1]

BY A. ERNEST SANSOM, M.D. LOND., F.R.C.P.

I WISH to bring under notice a plan of treatment which, I think, is scarcely known in this country, but which shows promise of much practical usefulness. Every practitioner will, I am sure, acknowledge to an aching of heart over cases in which he feels that a little addition to the powers of nutrition, a little supply to the tissues of the materials necessary to their well-being, may turn the scale from death to life, and yet that little "aliquid" is not to be found. The difficulty presents itself in acute as well as in chronic cases, in conditions of immediate as well as prolonged emergency. Take the case of fevers in which a number of factors co-operate to induce a condition of danger—nutrition is not only in abeyance, but there is rapid waste. It is unnecessary to say that an increase in nutrition or a lessening of waste may make all the difference between death and life. Then, in chronic affections such as pulmonary phthisis the experience of late years tells to the effect that if by means of a healthier general nutrition the pernicious metamorphosis of tissue which results in caseations or tubercles can be modified, we may turn the scale towards recovery. In sudden emergencies, as from alarming hæmorrhages, the craving for a rapid supply to the exhausted organism prompts us to adopt transfusion of blood, and in a like condition brought about by chronic maladies such as prolonged anæmia, we are sometimes called upon to consider the question of this most perilous method of treatment. We have presented to our view every day of our lives the probability of a case coming before us in which, if we could only suggest a method of conveying to the tissues the pabulum which they need, we might have the satisfaction of seeing our patient recover.

Of course in all the cases now presented to us I assume that we have made up our minds that appeals to the stomach are unavailing. We have done, and still do, what we can to ensure to the full the absorption and assimilation of all that we can present to the alimentary tract through the mouth. Yet nutrition fails, and we have to think of plans of administering food by the rectum, by the skin, or by injection into the blood itself.

It is only *feeding by the rectum* that I shall now ask for consideration. The experience of every medical practitioner, I am sure, will tell of cases in which nutritive and stimulant enemata have been of essential service. We can point to cases kept alive—barely alive probably, but alive—by them. Of nutritive and stimulant enemata hitherto employed I may briefly refer to the following:—

1. *Hot Water.*—It has been recommended in certain conditions of collapse to administer, by the rectum, water at about the temperature of the blood. This would appear to repose on a reasonable basis. In many such conditions of halt on the part of the circulation a mere addition to the volume of the circulating blood has been successful in re-establishing, at least temporarily, the action of the heart. This is the rationale of action in the cases in which the injections of weak saline solutions into the veins in cholera collapse have been followed by improvement. There is no doubt that fluid is absorbed from the mucous surface of the large intestine, and so enters into the circulation. In sudden collapse, therefore, the practice of administering a warm fluid enema is decidedly to be recommended.

2. *Alcohol and Diffusible Stimulants.*—There is no doubt that the mucous surface of the lower bowel absorbs alcohol, ammonia, &c. The addition of these agents to a fluid enema may be considered as a matter of discretion. While reasonable and scientific additions to simple aqueous enemata, however, it is well to point out that alcoholic admixtures with nutritive enemata consisting of solutions of albumen are unscientific and unsound, the alcohol tending to coagulate the albumen.

3. *Medicinal Agents.*—It is well known that medicines may be absorbed from the mucous surface of the rectum.

[1] A paper read before the East London and South Essex District Branch of the British Medical Association.

This is proved to us by our frequent experience with regard to opiate enemata, as well as by the action of the hosts of medicated suppositories so commonly employed. We find that absorption of the medicine is not so complete as when it is presented to the stomach; so we are accustomed to administer larger doses per rectum. Moreover, we learn that rectal absorption is more tardy. Dr. A. H. Smith found that eight grains of fluid extract of rhubarb in twenty grains of water, at a temperature of 75° F., gave the characteristic red colour to the urine, on the addition of caustic potash, in sixteen minutes after injection into the stomach. In cases where the same quantity at the same temperature was injected into the rectum the period after which the reaction was evidenced was sixty-five and seventy minutes. But when the temperature of the enema was raised to 105° F. the reaction was obtained in forty minutes.

Whilst absorption, then, of medicines by the rectum is more tardy and less complete than absorption by the stomach, there is abundant evidence of administration by the bowel being a very important means whereby fluids, stimulants, and medicines enter the blood.

4. *Solutions of Albumen.*—Here also we have evidence of absorption, but under narrowly-defined limits. The rectum is but a passive pouch; it has no power of preparing albuminous bodies for absorption as the stomach has, and such absorption is only effected by dialysis into its venules. It follows, therefore, that albumen is only absorbed when it is in aqueous solution. We know how very limited is the absorbability of unmodified albumen. It is evident, therefore, that of the albuminous contents of nutritive enemata as commonly employed only a fractional proportion is taken up into the blood-current to subserve any useful purpose of nutrition.

5. Lastly, there is fair evidence to show that fatty matters, such as those pertaining to milk and cod-liver oil, are capable in some degree of absorption from the rectum. (For formulæ for enemata falling under the foregoing classification, see Tanner's "Practice of Medicine," vol. ii., p. 480.)

Such, then, were the enemata long in common employment, and such are those which now are very generally employed. A very great improvement was, however, effected when efforts were directed to render the albuminous constituents of a nutritive enema more capable of absorption. I have already said how very limited is the amount of albumen possible of absorption in an ordinary nutritive enema. The improvement consisted in administering the albuminous constituent of the enema in the form of *peptone*, such peptone being produced by the action of pepsine or pancreatine upon albuminous bodies. Pepsine used to be employed, but more recently preference has been given to pancreatine. Dr. Leube mixed one part of finely minced pancreas with three parts of scraped meat, adding warm water sufficient to make a small injection, and sometimes a slight proportion of fat. He found by experiments upon dogs that a considerable quantity of nitrogen was thus conveyed to the body. Dr. Horace Dobell has given the following formula:—Cooked beef or mutton, finely grated, ½ lb.; pancreatic emulsion (Savory and Moore), 1 oz.; pancreatic powder, 20 grs.; pepsine (pig's), 20 grs. Mix the whole in a warm mortar quickly, and add one tablespoonful of brandy, and enough warm water to bring the mixture to the consistency of treacle. Inject from an elastic enema bottle as quickly after the mixture has been made as possible, and let it be retained. More recently pancreatic extracts have been employed as peptonising agents. The liquid extract or the saline extract of pancreas is added to milk, milk-gruel, or juice of meat, and kept for some time at a temperature of about 140° Fahr. The mode of preparing such peptones, whether for administration by stomach or by bowel, is fully described in Dr. W. Roberts's valuable Lumleian Lectures "On the Digestive Ferments, and the Preparation and Use of Artificially Digested Food." Speaking particularly of administration per rectum, Dr. Roberts's says, "The enema may be prepared in the usual way, with milk-gruel and beef-tea, and a dessertspoonful of liquor pancreaticus should be added just before administration. In the warm temperature of the bowel the ferments find a favourable medium for their action on the nutritive materials with which they are mixed, and there is no acid secretion to interfere with the completion of the digestive process. I have now had some experience in this method of alimentation, and have been satisfied with its success. In one case, a patient suffering from post-pharyngeal abscess, which entirely occluded the œsophagus, was nourished exclusively for a period of three weeks (until the abscess broke) on enemata of milk-gruel mixed with pancreatic extract."

(To be concluded.)

ON THE ADVANTAGES OF CLOSING THE SAC BY CATGUT SUTURES IN HERNIOTOMY.

BY F. A. SOUTHAM, M.A. OXON., F.R.C.S.,
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IN the operation of herniotomy, where the sac is opened, it is, I believe, the usual custom (excluding, of course, those cases where a radical cure is performed at the time of operation), after dividing the stricture and returning the bowel into the abdomen, simply to bring together the margins of the cutaneous wound with sutures of silk or silver wire. If, however, the cut edges of the opening in the peritoneal sac are in addition accurately brought into contact by means of catgut sutures, considerable benefit is derived, both as regards the more speedy healing of the wound and the prevention of extension of inflammatory action from the superficial structures to the interior of the sac.

The advantages of this simple proceeding are as follows. In the ordinary method of operation, when skin sutures are merely employed, and where, consequently, the edges of the wound in the sac are not brought into accurate contact and maintained in that position, but are left to adjust themselves as they best can, even though a drainage-tube be used, a ready way is left for the drainage backwards of inflammatory discharges into the sac through the opening that remains in its walls. If, however, the margins of the opening in the sac are brought into exact apposition by means of catgut sutures, this result will not occur, for as wounds in the peritoneum heal very rapidly, union of its cut surfaces will probably have taken place before any discharges have formed in the wound; consequently, instead of draining backwards into the sac, where they would tend to set up a local peritonitis which may afterwards spread, they will make their way downwards between the integuments and outer surface of the sac to the lower part of the skin-incision, where they will discharge themselves externally, if a drainage-tube has been inserted or an opening left for that purpose. For the same reason, if any recurrent hæmorrhage takes place after the conclusion of the operation, it will make its way externally, instead of gravitating backwards into the sac.

Though the operation of herniotomy may be performed antiseptically, yet from the situation of the wound and from the movements of the patient often tending to loosen the dressings and allowing the air to penetrate beneath their margins, difficulty is not unfrequently experienced in the after-treatment in keeping the wound perfectly aseptic. By the employment, however, of strict antiseptic precautions during the operation, and by the closure of the opening in the sac at its conclusion, the operation itself may in a sense be compared to one in which the sac has not been opened, and even if septic particles should subsequently, from some unpreventable cause, gain access to the wound, so that putrefactive changes are induced in its interior, the same condition may still be considered to exist; for under the most unfavourable circumstances it is not likely that this complication will occur within the first eighteen or twenty-four hours, by the end of which period considerably firm union will probably have taken place in the wound of the peritoneal sac, forming a barrier which will completely shut off its cavity and prevent the entrance into it of any septic matter.

I have recently availed myself of this modification of the method usually employed in closing the wound in six cases of herniotomy performed antiseptically in the Manchester Royal Infirmary, having, after reducing the bowel and clearing away all the blood clots and fluid from the interior of the sac, carefully adjusted the cut margins of its peritoneal walls, and brought them as nearly as possible into exact contact by catgut sutures introduced at a distance of about a third of an inch from each other and afterwards cut off short close to the wound. The margins of the skin-incision

were then brought together by sutures of carbolised silk in the usual manner.

In five out of the six cases the result was most satisfactory, the skin-incision in each instance healing at once by first intention, with very little general elevation of temperature, and without a trace of that deep-seated local pain and tenderness which are so often present, and which then indicate a certain amount of localised peritonitis.

In the sixth case death ensued from perforation of the bowel about twenty-six hours after the performance of the operation; but in this instance also union was apparently taking place by first intention, and, on post-mortem examination, the margins of the opening in the sac were found to be firmly adherent together.

Peritonitis is, without doubt, the most formidable complication that we have to encounter both before and after the operation of herniotomy, and is, in the majority of cases, the immediate cause of death. Though we often find this condition already present or impending at the time of operation, yet in many instances it only makes its appearance after an interval of thirty-six or forty-eight hours, and in those cases where there is nothing in the condition of the sac or its contents at the time of operation to account for its subsequent appearance, it seems not unlikely that it may arise simply in consequence of extension of inflammatory action from the cutaneous wound, especially in the case of the old and feeble, whose powers of repair are not so great, and where the wound, not healing so readily, is more liable to become the seat of septic changes. If, then, by this simple proceeding, adopted merely as a safeguard against some of the later complications of herniotomy, and without any idea of producing obliteration of the sac, as in the operations for radical cure, we can, to some extent, prevent the extension of inflammatory action from the superficial wound to the interior of the sac, we at once eliminate one of the causes upon which the occurrence of peritonitis after herniotomy must, in many instances, depend.

Manchester.

STERILITY DUE TO ANTEFLEXION OF THE UTERUS, TREATED BY STEM AND SHIELD.

BY A. WYNN WILLIAMS, M.D.

IN reference to Dr. Herman's remark,[1] I can only state that I cannot give the absolute number of cases where pregnancy has followed after the introduction of a vulcanite stem and shield; for in many instances, especially in hospital practice, we are frequently not informed of the result, and the cases under my care have been too numerous to follow to their own homes. Early in January a young woman brought her child to me at the Samaritan Hospital for advice, pregnancy having taken place after wearing a stem and shield for four months. She had been married three years and a half, previous to consulting me, without issue. I am of opinion that more sterility is due to anteflexions of the uterus than any other cause, probably more than all the other causes put together. In other displacements or flexions we often find impregnation taking place; but I cannot call to mind one single instance of impregnation occurring where an acute anteflexion existed. I will relate two typical cases. I select these for two reasons—1st, because both cases had been treated by other gynæcologists, and one by gynæcologists of both sexes; 2nd, because one was about the first case I treated in the way I am about to relate.

CASE 1.—M. R——, aged twenty-three, married between three and four years; no family. She informed me she had been attended by a lady doctor, who told her she had a tumour in the womb. She had also attended as an out-patient at St. Mary's Hospital, where she was advised to come to the Samaritan, her case having been diagnosed as displacement of the uterus. She had not menstruated before marriage, but did so soon after, with very great pain in back and left ovary, which commenced two or three days previous, and this had always been the case at the catamenial period, followed by the passing of clots, terminating in a nasty, thick, offensive discharge, and during the time was unable to get about. She also suffered great pain on connection. On examination I found her suffering from a very acute anteflexion of the uterus, into which I could only pass the sound by giving it a very considerable curve, and introducing the point downwards about three-quarters of an inch, then turning it upwards. After undergoing various methods of treatment at different times at the hospital, and wearing different kinds of stems—elastic and otherwise—without any material improvement, in July, 1874, a stem and shield, with socket to receive the button of the stem in the lower end, so as to fix the uterus in its natural position, were introduced. This she wore until November (four months), with great relief and comfort. When it was removed, she shortly after became pregnant, and is now the mother of three children. The only treatment during these four months was the syringing out of the vagina with Condy's fluid, a drachm to eight ounces of water, to prevent any disagreeable odour.

CASE 2. — Mrs. B——, aged twenty-eight, married about six years, consulted me on June 23rd, 1876. She informed me that she had suffered more or less at her catamenial period ever since she commenced to menstruate, with pains in the back and left ovary. (I cannot explain the reason why, but it is generally the left ovary that is sympathetically affected.) Since marriage all the symptoms have become aggravated, and for a day or two at the commencement of each period she is completely prostrate until she is relieved by the passing of blood clots. There is considerable leucorrhœa at all times; there is also a slight lateral curvature of the spine in the lumbar region. She stated that both her husband and herself were particularly anxious to have a family; that she had been under the care of several eminent medical men, but had failed to obtain any relief; that she had worn, amongst other instruments, a flexible india-rubber intra-uterine stem. On examination per vaginam, the body or fundus of the uterus and os were found looking (if I may so term it) towards the symphysis pubis; the mucous membrane of the vagina was inflamed, and the os uteri slightly excoriated, due to the muco-purulent discharge. A sound, a malleable one, was introduced in the same manner as in the previous case. After some preparatory treatment, on Aug. 1st an intra-uterine stem and shield were inserted, which she wore until just previous to the second menstrual period, when it was removed by my son, Mr. T. Wynn Williams of Brixton, during my temporary absence. She shortly after conceived, and was delivered of a fine girl in due course by a gentleman in Liverpool, whose name I unfortunately cannot recollect.

Montagu-square.

[1] See THE LANCET, Jan. 1st, p. 26.

CASE OF SNAKE-BITE.

BY F. CHARLES HEIDENSTAM, M.D.,
DISTRICT MEDICAL OFFICER OF THE LARNACA HOSPITAL, CYPRUS.

I HAD often heard that persons here in Cyprus had suffered, and that some had even died, from the venomous effects of a bite from a snake called by the natives *Kouffi* (Κοῦφι), which is in reality the Vipera mauritanica, but I had never had the opportunity of watching or treating a case of this kind till recently, as Cypriot peasants have great faith in charms and in drugs of their own composition, which they believe to be almost infallible in cases of snake-bite, and in consequence they rarely seek medical advice.

At about 10 A.M. on 17th June, Ismail Abdullah, a Turkish zaptieh (police), aged twenty-one years, was brought to the hospital from Tohkni, a village about twenty miles distant. His story was that a snake-charmer had charmed and persuaded him that he could take hold of any snake without being bitten. Coming across one on the previous day he seized it, feeling confident that it could do him no harm, and was bitten on the back of the right hand. He felt a smarting pain of a burning character immediately he was bitten. A few hours afterwards vomiting set in, and his hand and arm became greatly swollen. On being admitted to the hospital his state was as follows:—The whole of his right hand and arm were much swollen and presented a mottled marble aspect. The marks of two punctures were plainly visible on the back of the right hand, surrounded by a dark circle a little more than an inch in diameter. On scarifying the two wounds blood of a darkish colour issued from them. The constitutional symptoms were: great

prostration, profuse cold sweat, slight dyspnœa and great restlessness. Temperature 101°; pulse 116. Ammonia was administered to the patient internally, and also applied externally to the swollen arm and bitten hand. The patient was delirious and passed an exceedingly restless night.

The following morning the arm and hand presented a phlegmonous erysipelatous appearance, with glandular enlargement and suppuration; dyspnœa had increased; there was diarrhœa and an appearance of jaundice. Temperature 102°, pulse 122.

During the following three days the patient's state was much the same as that on the day following his admission to the hospital. Ammonia and stimulants were continued.

On the fifth day the external aspects of the limb seemed to have improved, but high fever and restlessness continued. On feeling the arm I found that its entire length from the back of the hand to the shoulder was soft, and on making an incision above the wrist oozing matter ran from it abundantly. Similar incisions were made along the arm at three different places, the same kind of discharge made its appearance at all of them. Suppuration and sloughing continued for several days, during which antiseptic dressing was used. On July 22nd the patient had quite recovered with the exception that his arm and fingers were rather stiff.

Larnaca.

ON THE USE OF A NEW SILVER SALT IN THE TREATMENT OF ORGANIC NERVOUS DISEASE.

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I HAVE no doubt my own disappointment in the use of various remedies recommended by different authorities for the treatment of organic nervous disease is shared by many who have given even the most promising a fair trial. Nitrate of silver, a drug with an ancient reputation, is one of the few not to be despised, for occasionally it proves of great service, but, as a rule, it is entirely inefficacious. We are, therefore, too apt, in a great majority of instances, to resort in a routine way to iodide of potassium, or mercurial treatment, with variable results.

About three years ago it occurred to me that the combination of phosphorus with silver might well be worth trying. I therefore, through the kindness of Dr. Doremus of Buffalo, procured a sample of the tribasic phosphate of silver, a salt prepared in the following manner:—Precipitate a solution of argentic nitrate with a solution of trisodic orthophosphate, wash with distilled water, and dry in the dark. The process may be expressed as follows:—$3NO_3Ag + PO_4Na_3,12H_2O = Ag_3PO_4 + 3NaNO_3 + 12H_2O, Ag_3PO_4$.

A second sample of the drug was made by Mr. Frazer, of Caswell, Hazard, and Co., New York, according to the above formula. It was a heavy powder of a lemon-yellow colour, and was slightly darkened by exposure to the light.

The tribasic phosphate of silver possesses advantages over the other silver salts which entitle it to a fair trial. I have given it for months in doses varying from one-third to half a grain without any skin discoloration whatever, and its administration is unattended by the gastric irritability that so often follows the use of either the nitrate of silver or the phosphide of zinc. At the same time its therapeutical effects are much more pronounced. It is best given with some such excipients as argol and glycerine, for vegetable substances tend to decomposition; and for this reason I have discarded the confection of roses as an element of the pill mass.

In the first edition of my work upon Nervous Diseases[1] I directed attention to the probable advantages of this drug, especially in sclerosis of the posterior columns. The experience of two years has convinced me that it is my duty to urge others to make use of the remedy. In two class of cases it has proved to be of great value—1. In those of more or less acute myelitis with disturbance of the bladder and rectum. Not only in such cases of transverse disease has there been a decided improvement in the matter of control over the functions of these organs, but there has been a decided gain in the muscular power. This has been conspicuous in a very remarkable case of chronic meningo-myelitis seen in consultation with Dr. Todd of Ridgefield, Conn. 2. In cases of sclerosis of the nervous substance. In seven cases of posterior spinal sclerosis there has been a subsidence more or less in the violence of the pains, and in those who have taken the drug for over a year the power of locomotion is materially increased.

In six cases of inveterate epilepsy, as the result of gross inflammatory intracranial changes, the patients have been relieved, judging from the diminution in the number of the attacks.

I am now giving the drug to patients with cerebral tumour and general paralysis, and while it would be out of the question to expect anything like permanent cure in such hopeless diseases, I do believe that a persistent and proper use of the silver salt will do much more for the patients than any of the drugs hitherto used. I can find in medical literature no record of the use of the phosphate of silver, nor am I able to learn by inquiry that it was used prior to 1878. I sincerely hope that others may be prompted to publish their experience.

East 33rd Street, New York.

[1] Nervous Diseases: their Description, &c.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. IV. Proœmium.

MIDDLESEX HOSPITAL.

HYSTERICAL VOMITING OF EIGHT MONTHS' DURATION.

(Under the care of Dr. COUPLAND.)

THE following summary may be of interest in connexion with the case read by Dr. Sutherland at the last meeting of the Clinical Srciety:—

Bridget S——, aged twenty-four, a domestic servant, unmarried, was admitted on May 2nd, 1879, under Dr. Greenhow, and subsequently came under the care of Dr. Coupland. She had never been ill before, was habitually constipated, but menstruated regularly. Seven months before admission she was attacked with giddiness, faintness, and vomiting after food; she did not bring up blood at this time, but she stated that six weeks later bright blood was vomited. From that time vomiting had continued at intervals, and she suffered from continuous pain at the pit of the stomach, periodically worse every three weeks. Vomiting, which ensued immediately on taking food, always relieved the pain. The patient's appearance was certainly not that of one suffering from organic disease. She was pale, stout, and flabby, and although at first apparently suffering pain, her expression was for the most part calm and placid, and even apathetic. The pain she complained of was seated between the shoulders and in the epigastrium; there was limited tenderness in the latter region, where pressure also excited dorsal pain. Tongue was clean; bowels constipated. No other organs objectively deranged. Temperature 98·5°, pulse 88, full and regular. Urine, sp. gr. 1025, acid, no albumen. Before the evening she had vomited a large quantity of greenish fluid, neutral in reaction, containing bile. It may be added that the vomited matter was always of this character, clear (unless mixed with curdled milk or other ingesta), and of a grass-green tint, sometimes assuming an olive colour after long exposure. The vomiting proved to be the predominant symptom, recurring several times a day, but the pain and tenderness varied in intensity, in duration, and in situation. Sometimes there was nausea with or without vomiting, and very frequent attempts at vomiting. On the 20th of May Dr. Hall Davis was consulted, but the greatly contracted hymen prevented uterine examination, nor was there any reason for suspecting uterine derangement.

On admission she was put upon a diet restricted to jelly, beef-tea, and three pints of milk, all solid food being inter-

dicted, and the milk given with lime-water. Next morning calomel and magnesia were given, which relieved the constipation that had lasted four days. On the 4th, as the food seemed to induce vomiting, nutriment was entirely administered by enemata every four hours, a few drops of laudanum being added to ensure their retention. On the 5th a sinapism was applied to the epigastrium, and on that day the vomiting was certainly less, and the pain easier, an amelioration which continued throughout the following day. On the 7th bismuth and hydrocyanic acid were prescribed, and the sinapism to epigastrium was repeated. The vomiting did not cease, although the quantity ejected was less, and on the 9th a blister was applied locally, and a small quantity of beef-tea allowed by the mouth, which was discontinued next day, as the sickness recurred violently, and hypodermic injections of morphia (one-sixth of a grain) were commenced. On the 11th she was allowed a little egg and brandy by the mouth, and the carbonate of bismuth given in place of the liquor. There was no abatement of the vomiting however, and the nutrient enemata were still continued. On the 13th ice caused pain, and vomiting still persisted. Oxalate of cerium was prescribed on the 14th, and on the 15th she was free from sickness for twenty-four hours, but under the same treatment the vomiting recommenced on the 16th.

From May 18th to June 8th the vomiting still continued, and the quantity of vomited matter was compared with the amount of urine excreted every twenty-four hours—viz.:

	Vomited matter.	Urine.	Bowels.
May 18th	6 oz.	10 oz.	Open twice.
,, 19th	10 ,,	28 ,,	—
,, 20th	18 ,,	18 ,,	—
,, 21st	30 ,,	*	Open twice.
,, 22nd	28 ,,	16 ,,	—
,, 23rd	26 ,,	10 ,,	—
,, 24th	22 ,,	10 ,,	—
,, 25th	26 ,,	(?)	Open once.
,, 26th	28 ,,	12 ,,	—
,, 27th	43 ,,	26 ,,	—
,, 28th	34 ,,	12 ,,	—
,, 29th	26 ,,	18 ,,	Open.
,, 30th	31½ ,,	8 ,,	—
,, 31st	20 ,,	36 ,,	—
June 1st	20 ,,	16 ,,	Open.
,, 2nd	20 ,,	18 ,,	—
,, 3rd	12 ,,	10 ,,	—
,, 4th	20 ,,	12 ,,	—
,, 5th	8 ,,	12 ,,	—
,, 6th	12 ,,	(?)	Open freely.
,, 7th	22 ,,	8 ,,	—
,, 8th	2 ,,	24 ,,	—

* Passed under her.

The treatment during this period varied as much as before, the chief measure being hypodermic injections of morphia (⅓ gr.), and atropia (1/120 gr.) every six hours, until the 5th of June, when they were finally discontinued; ice was applied to the epigastrium on May 24th, and an ice-bag to the spine on the 29th. On the 25th some fish and jelly were given by the mouth, the enemata still being continued. Most of this food was retained; and on the 2nd of June it was decided to discontinue the rectal alimentation entirely, especially as it was likely that, after a course of four weeks' uninterrupted administration, the absorbent power of the mucous membrane must have been somewhat exhausted. The fish diet, with beef-tea, milk, and an egg, was therefore given on the 2nd, with the addition of custard-pudding on the 5th, when also the hypodermic injections were left off. The result of this change in treatment proved very satisfactory. On the 8th only two ounces were vomited, and from that date the sickness ceased. She was allowed to get up, encouraged to exert herself, having during the whole time lain in an apathetic inert condition. Meat was allowed on the 10th, and she had no return of pain. Throughout the temperature had been normal or subnormal, and the pulse rate from 84 to 96. The urine was free from abnormal constituents. The patient left the hospital on June 27th.

Remarks.—In spite of the resemblance of the symptoms to those of chronic gastric ulcer, which led to the measures employed in the first instance, it became obvious after a time that the vomiting was of a neurosal character. The aspect and well-nourished condition of the patient, the occurrence of vomiting independently of taking food (even when no food was taken by mouth); the character of the vomited matters, from first to last free from blood; and the act of vomiting itself—all combined to favour the hysterical hypothesis. Indeed, it could hardly be called vomiting; it was often little more than a simple regurgitation or fluid eructation, not accompanied or preceded by straining, or notable contraction of the diaphragm or abdominal muscles. A note made on May 22nd illustrates this point:—"Pressure over the epigastrium causes a sense of nausea, and at times even actual sickness. Whilst the abdomen is being palpated very gently, without manifest pain, some clear fluid is ejected from the mouth without any effort or the usual mechanism of vomiting being brought into play." The result of allowing her solid food, of calling into play her dormant volition, and of ceasing to regard herself as an incurable invalid, seem to place the purely functional character of the affection beyond a doubt. At the Clinical Society last year Dr. Graily Hewitt recorded a remarkable case where vomiting had continued persistently for ten months, unalleviated by all measures of treatment. The patient was reduced to an extreme degree of emaciation, and the vomiting ceased after measures had been taken to rectify a malposition of the uterus. In the present case there was no evidence of any uterine derangement, and, in spite of vomiting (which before admission had occurred intermittently for some months), her general nutrition was unaltered.

COUNTY HOSPITAL, LINCOLN.

GUNSHOT INJURY; DESTRUCTION OF RIGHT KNEE-JOINT AND AMPUTATION OF THIGH; ANEURISM OF LEFT FEMORAL ARTERY TREATED BY DIGITAL PRESSURE AND ESMARCH'S BANDAGE.

(Under the care of Mr. SYMPSON.)

FOR the following notes we are indebted to Mr. W. J. Cant, house-surgeon.

J. T——, aged forty-six, was admitted on August 22nd, 1880, with a severe gunshot injury of right knee, left thigh, and both hands, caused by the discharge of a fowling-piece at a distance of about twenty feet. The tissues were not much torn, but there were marks indicating the entrance of numerous shots. The patient suffered from severe shock, soon followed by well-marked inflammatory reaction. The knee-joint was poulticed and fixed immovably on a McIntyre splint. Both hands, after suppurating freely, gradually healed. Numerous abscesses formed round the knee-joint, which were opened, allowing the escape of large quantities of laudable pus. The temperature was always more or less above normal, and on two or three occasions reached as high as 103°. There was continuous intense pain, radiating from the knee-joint, with increasing formation of pus, which discharged from numerous sinuses. Symptoms of exhaustion were setting in. On Oct. 2nd a consultation was held, when it was decided that the thigh should be removed at the junction of the middle and lower thirds.

On opening the knee-joint after its removal it was found to be extensively damaged, the cartilage over the head of the tibia was torn and ulcerating; both condyles of the femur were denuded of cartilage, and the cancellous tissue was broken up. The operation was performed under the antiseptic treatment.

On the day before the operation a small pulsating swelling was found connected with the femoral artery of the left thigh, which, on careful examination, was proved to be an aneurism. The tumour was rapidly increasing, and on Oct. 3rd, was found to have reached the size of a small orange. At two o'clock of the same day digital compression of the femoral artery at Scarpa's triangle was commenced and continued for two hours, when Esmarch's bandage was applied from the toes up to the aneurism, and then to the thigh above the aneurism, thus leaving the tumour exposed. Digital compression was continued, as the pressure from the Esmarch's bandage was not sufficient to stop the pulsations (ether was not administered). The bandage and pressure were continued for eight hours, when on their removal the pulsations had ceased, and the tumour consolidated.

The thigh-stump healed completely in about three weeks, without any formation of pus, showing a firm and linear scar. The aneurism gradually diminished in size, and on Nov. 8th, when the patient was discharged cured, scarcely anything could be felt of it; the femoral artery pulsated above and below the tumour.

CUNNINGHAM HOSPITAL, ST. KITTS, WEST INDIES.

CASE OF ELEPHANTIASIS OF THE LEG; AMPUTATION; SECONDARY HÆMORRHAGE ON THE TWENTIETH DAY; LIGATURE OF FEMORAL ARTERY; DEATH.

(Under the care of Mr. A. BOON.)

S. G——, a delicate-looking negro labourer, forty-five years of age, was admitted into hospital on Oct. 27th, with elephantiasis, and an extensive ulcer of the left leg. The elephantiasis extended up to the knee, and slightly above it; the ulcer occupied the lower third of the leg; it was deep and foul, discharging profusely, and of many years' duration. The right leg was not affected. Urine normal. Had had syphilis and dysentery several times. As the ulcer was very large and incurable, and therefore a great drain on his strength, and as his general health was better than it had been for some time, it was determined to amputate, which was accordingly done on the 30th, by the circular method, the bones being sawn through at a line about one inch below the tuberosity of the tibia. The elastic tourniquet, on being applied before the operation, broke, the india-rubber having been spoiled by the climate, so an ordinary tourniquet was put on. The venous hæmorrhage was pretty severe, which is often the case; several large veins and about a dozen arteries required ligature. The stump was swabbed with a solution of chloride of zinc, and enveloped in carbolised tow. Carbolised catgut ligatures and horse-hair sutures were used. After the operation all went well. By the end of the first week the flap had united, except at two points. At first there was the profuse watery discharge that is always seen in such cases; afterwards a small quantity of inodorous pus was found on the dressing which was renewed every two or three days. The patient's general health improved steadily; his temperature and pulse remained at normal; his appetite good; his bowels regular; his sleep unbroken. So things progressed; he was far in advance of a man in the next bed, whose leg had been removed a week before his for traumatic gangrene of the foot.

On the evening of the twentieth day the patient foolishly got out of bed on to the floor: frightful hæmorrhage came on; the alarm was given, and the resident assistant, Mr. Winter, was speedily on the spot and applied a tourniquet, which effectually controlled the bleeding, but in the few minutes several pounds of blood had been lost. Mr. Boon was sent for, and on his arrival found the man in a state of collapse. Stimulants were given, and he rallied to some extent. Mr. Boon then, with the assistance of Dr. Waldron, opened up the flaps, which were very firmly united except at the two points mentioned above, and sought for the vessel from which the hæmorrhage had come, but was unable to find it; the man was in such a condition that it was not safe to relax the tourniquet. It was, therefore, decided to tie the femoral artery in Hunter's canal, which was done. Though the vessel was empty, in consequence of the tourniquet being still on the limb, and the operation had to be done by lamp-light, there was not much difficulty in finding the vessel and applying the ligature. But the loss of blood had been too great, and the patient died shortly after.

The next day a careful dissection showed that the hæmorrhage had come from the popliteal artery; the vessel tapered a little at the cut end, which was patent, the diameter of the opening being equal to about one-third of that of the vessel. It was evident that the catgut had behaved much in the same manner as an ordinary silk ligature. The artery itself seemed to be healthy except at a point about one-fourth of an inch from its extremity, where there was an irregular opening of about the same area as the one already mentioned, which had the appearance of being the result of an ulcerative process in the coats of the vessel. Finally, there was merely a slight trace of an internal plug, a few shreds of blood-stained tissue adhering to the sides of the vessel and in no way obstructing its calibre.

Remarks by Mr. BOON.—Though the questions of the advisability of operating, and the method of operation, in such cases of elephantiasis may be discussed at another time, this case is of interest from the fact that the carbolised catgut ligature was used, and secondary hæmorrhage ensued at an unusually late date. I am satisfied, however, that there was no connexion between the form of ligature and the hæmorrhage. No doubt the patient getting out of bed was the immediate cause of the catastrophe, but I am inclined to think that, sooner or later, the vessel would have given way. It is not so clear what was the cause of the almost complete absence of the internal plug. Probably the syphilis, the hæmorrhage at the operation, and the general condition of the patient, all three, had something to do with it. I may add that the carbolised catgut was above suspicion, having been procured from Weiss.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Congenital Truncation of Forearm.—Tubercular Disease of Joints.—Abscess in the Liver.

THE ordinary meeting of the Pathological Society of London was held on Tuesday, Feb. 15th, Dr. Wilks, President, in the chair. The chief subject considered was the presence and influence of tubercular growths in the synovial membrane and bones of diseased joints, introduced by Mr. Croft and illustrated by microscopical preparations by Drs. Greenfield and Mercer and Mr. Makins. Dr. Andrew Clark brought forward a case of Abscess of the Liver which presented features of considerable interest.

Mr. BARWELL showed two living specimens of Truncated Malformation of the Forearm. This deformity has latterly been considered to be due to intra-uterine amputation by shreds of indurated fibrin. No doubt intra-uterine amputation does occur, for in some few rare cases the amputated portions have been born. He had found of such cases only three on record—in one, the foot was amputated and born afterwards; a second, in which the foot was born hanging to the amputating thread; and a third, in which the foot was born some days before the child. Simpson speaks of the little finger-like growths at the end of the stump as the results of secondary reproduction. Both the women shown had a truncated forearm; the younger one has four small digits and a little depressed pucker; the elder one has four fingers and thumb and a palm, all rudimentary; no pucker; no nails in either case. There is considerable voluntary movement of adduction and rotation of these fingers as a whole. We cannot believe that these muscles and nerves are formed by rudimentary reproduction, and, therefore, in most of these cases the theory of intra-uterine amputation also falls to the ground. Most of these cases are really lack of development. He had seen many cases, and in all of them but one there had been rudiments of fingers.—Dr. N. MOORE thought the view of arrested development fully borne out by facts. These cases were most interesting in comparison with the sirenia—aquatic herbivora—in which the hind-limbs are not developed; these animals are probably descended from terrestrial herbivorous animals, with perfect hind-limbs. In all the instances of undoubted reproduction of amputated limbs, as in amphibia, the new limbs are perfect.—Dr. WILTSHIRE bore testimony to the accuracy of Mr. Barwell's statements. He had never seen a case of true intra-uterine amputation. The rudimentary digits in the cases shown were of the size of a fœtus of four months, and this fact suggested that the developmental error occurred at that time. Cretinoid fœtuses show well a condition of truncated arms and legs, which, if carried further, would simulate Mr. Barwell's cases. It is an arrest of development, and very rarely amputation.

Mr. CROFT showed a series of microscopic specimens to illustrate the occurrence of Tubercle in Bone and Synovial Membrane. He premised that by tubercle he meant a small-celled growth surrounding epithelioid cells, with giant cells, and a fine reticulum, non-vascular, and tending to caseation in its older forms. The patients from whom the specimens were obtained were all in delicate health; their joints progressed very tediously; there was great hyperplasia, and abscesses with carious pus. Case 1, aged twenty, had effusion in knee-joint for three months; the leg was amputated; tuberculosis of synovial membrane was found; he subsequently died of intestinal phthisis; his

grandparents had been phthisical. Then followed three cases of chronic hip disease, aged four, six, and twelve, who had suffered for six months, one year, and two years. One died from tubercular meningitis, another died of rapid general tuberculosis. The near relatives of two of them were consumptive. Case 5, female, aged twenty, disease of knee two years; died after excision. There was tubercle of lungs and spleen. Case 6, girl, aged eight, chronic disease of ankle more than three years; the grandparents were consumptive. The microscopic examination had been conducted by Dr. Clifford Mercer, under the direction of Dr. Greenfield, to both of whom he was greatly indebted. Dr. Greenfield had drawn up a report, which was as follows:—

CASE 1. P——. (Knee-joint.)—*First series of sections, through the semilunar cartilage and a mass of fungating granulations* growing from it. The outline of the fibro-cartilage is distinct at the lower part, and its structure there appears unaltered. On the upper surface is a mass of granulation tissue more than half an inch in thickness, from the edges and surface of which project vegetations, some of which are polypoid. The upper layers of the fibro-cartilage show some signs of inflammation, and the fibres are separated by rows of leucocytes. Continuous with this surface is a layer of granulation tissue of ordinary character, which resembles in every respect organising cicatricial tissue, and contains vessels of new formation. This layer of granulation tissue is about half an inch thick, and forms by far the larger proportion of the thickened mass; towards the surface it becomes somewhat more cellular in structure. Completely covering it, both on the surface and at the edges, and penetrating for a short distance between the granulation tissue and the fibro-cartilage near the free edge of the latter, is a layer of tissue of entirely different structure, and abruptly defined. This has the structure usually seen in rapidly caseating tubercular infiltrations. This layer has the following characters. At the surface it consists of amorphous granular material, contains a few nuclei and the remains of cells (caseating mass). At the deeper surface, where in contact with the granulation tissue, it is limited by a more or less uniform and dense layer of small round cells, which stain deeply with reagents (leucocytes). In the intermediate layer are seen all grades of rapidly growing and degenerating tubercular granulations. These are, as usual, made up by the aggregation of small rounded or ovoid masses (tubercle follicles), united by a more or less perfect adenoid tissue. Only very few of the tubercle follicles present the perfectly developed typical form. These have the usual characters of one or more multi-nucleated cells (giant cells), with branching protoplasmic processes, which are continuous with a reticulum, formed mainly by branching flattened endothelial cells, and containing in the interstices rounded, ovoid, or variously shaped cells with relatively voluminous protoplasm. In many the reticulum is indistinct, or only seen here and there. They consist of one or two, or more, giant cells, spheroidal or polygonal cells, and spindle cells, especially at the periphery, all massed together. In others two or three enormous giant cells form the greater part of the mass. Caseation is common at an early stage, and fibrous change is rare. The caseated follicles have the usual appearance—an amorphous central mass, containing sometimes the remains of a persistent giant cell, towards the edge ovoid or elongated nuclei running outwards and merging in the tissue around. In some parts of the mass, and especially in torn edges, there are seen, as composing the growth, many large spheroidal or polygonal cells with a single or double nucleus (so-called epithelioid cells), many large spindle cells with ovoid nuclei, and large multi-nucleated cells. In fact, in all its characters this layer is identical in appearance with a layer of tubercular infiltration of the peritoneum, or of any organ. Scarcely any capillaries are visible in this layer of the granulations; it is almost entirely non-vascular.—*Second series of sections, through the edge of the articular cartilage and the bone*, and a mass of vegetating granulations at the free margin. The bone and articular cartilage show no marked change. The structure of the vegetations is identical with that seen in the first series of sections, the deeper layers being ordinary granulation tissue, the more superficial consisting of imperfectly formed tubercular granulations. In some places the synovial membrane is continuous over the layer of tubercle, and appears but little altered.

CASE 2.—W. R.—(*a*). *Sections of thickened synovial membrane.*—The thickened membrane formed a mass about a quarter of an inch in thickness, nearly smooth on the surface. In this could be distinguished a thin deep layer, consisting of the remains of the synovial membrane and ordinary granulation tissue, and a superficial, somewhat dense layer of caseous material; but by far the greater part is composed entirely of a mass of tubercular granulations. These are extremely typical, the follicles being very well developed, the giant cells and reticulum large and prominent. There is scarcely any caseation except at the surface, and the growth of the tubercle is orderly and apparently gradual. In the intermediate tissue between the tubercle follicles a relatively large proportion of newly formed vessels is seen, and towards the caseating superficial layer these gradually become blocked by concentric proliferation of their walls, which are entirely cellular. (*b*). *Sections of bone from the head of the femur, near the epiphysis.* (*c*). *Perpendicular sections of the bone after softening in chromic and hydrochloric acid.* A few grey granulations are visible with the naked eye in the sections, near the surface. Microscopically, they present the same characters as the tubercle in the synovial membrane; they are entirely situated in the medullary tissue—i.e., they do not appear to affect the bony trabeculæ.

CASE 3.—F. R—— (Mr. MacCormac's case.)—(1) *Sections through articular cartilage of the head of the femur, and a cauliflower-like mass of vegetations on its surface and projecting at the edge* (these formed a ring at the margin of the cartilage). The cartilage itself is but little altered, except some small cavities filled with granulation tissue. The chief substance of the vegetations is composed of granulation tissue. At the surface a condition closely resembling that in Case 1 (P——), viz., superficial caseation, and a layer composed of imperfectly formed tubercular granulations. Here, however, they are even less perfectly formed, and caseation is more advanced. Many consist merely of masses of epithelioid cells varying much in size and shape, contained in an ovoid or rounded cavity formed by imperfect lymphoid tissue. Only a few contain giant cells fully formed, or a complete reticulum. (2) *Sections of bone* from the head of the femur show no tubercle.

CASE 4.—Harriett P—— (knee-joint), 1 and 2. *Two series of sections from thickened synovial membrane.* In one series there is a deep layer of fat which is unaffected. In other respects the two series show very similar changes. The fibrous layers are swollen and show ordinary inflammatory changes, and upon the surface is a layer of ordinary vascular granulation tissue. Here and there in this layer are seen isolated tubercle follicles. Superficial to this is a layer of much greater, though variable thickness, consisting of ordinary tubercular infiltration. Upon the surface of this is a caseous layer of variable thickness. It is not easy in all parts to distinguish the tubercular zone from the zone of ordinary granulation tissue, the two seeming to shade off into one another in some parts, or the tubercle follicles to be embedded in the layer of granulation tissue. But in the completely formed tubercular zone the structure is very perfectly developed.

CASE 5.—Florence W—— (ankle-joint).—1. *Sections of a rounded mass of swollen synovial tissue*, consisting largely of fibrous bands. Owing to imperfect preservation the structure is not well brought out, but there is apparently an infiltration of the tissue with tubercle. In some parts the tubercular structure is very clearly seen.

CASE 6.—Lizzie F—— (hip-joint).—1. *Bone.*—The sections are from the head of the femur in the same position as in Case 3, and they show a similar condition—viz., the presence of scattered tubercular granulations—very few in number, and best seen near the surface of the bone. The periosteum over the part where it remains shows merely inflammatory thickening. 2. *Synovial membrane.*—No tubercle was found in any of the sections of the small piece examined.

CASE 7.—Hector W—— (hip-joint).—*Sections apparently of the round ligament, which is somewhat irregularly swollen.*—These sections consist entirely of ordinary newly formed young connective tissue, which is highly vascular, and in many places of myxomatous type.

Summary.—It appears from a comparative examination of these specimens from the hip, knee, and ankle joints, that in all the six in which the synovial membrane and bone were examined, tubercle was found; whilst in one in which only the thickened round ligament was examined, no tubercle was present. In the thickened synovial membrane a combination of common inflammatory changes with tubercular infiltration is present, and usually three zones may be distinguished: 1, a superficial caseous zone; 2, a zone of tuber-

cular infiltration, usually forming a large proportion of the entire mass; and 3, a zone consisting of the fibrous structures of the synovial membrane in a state of chronic inflammation. In the latter zone, as well as in the bone, isolated tubercular granulations are seen. In the articular cartilage in these cases nothing beyond some spaces filled with granulation tissue was seen. It is, of course, often a question whether the fungating mass examined is synovial membrane or newly formed fibrous bands, as the structure of the synovial membrane, if present, is quite obscured. I have not hesitated to call the structure in all these cases "tubercular" on the ground that it is identical with that seen in tuberculosis in whatever organ it may be examined, and that microscopically it is indistinguishable from tubercular infiltration of a serous membrane, whilst it is entirely distinct from the ordinary products of inflammation, whether acute or chronic. With regard to the majority of the specimens, those in which the growth is made up of rounded masses, themselves in turn composed of grouped follicles in which the structure of tubercle—giant cells, reticulum of flattened epithelioid cells, &c.—can be distinguished, I suppose there will be little doubt. But, in the other cases, where although the structure is similarly arranged, the follicles contain giant cells and epithelioid cells, without definite visible arrangement of reticulated stroma, there may be some who would prefer to call the change scrofulous inflammation. I have adhered to the term tubercle for these reasons. 1. That the same structure is met with in the rapid growth of tubercle elsewhere—it appears, in fact, to be a question of completeness of organisation before caseation occurs. 2. That a like condition is found in some parts of nearly all tubercular infiltrations in other organs, and is especially common in some—e.g., the spleen and liver. 3. That in the specimens where there are the most typical tubercular granulations this condition also occurs in many places. 4. That in other respects these specimens are precisely similar to the unquestionably tubercular, differing only in more rapid caseation. Additional evidence in favour of this view is found in the fact that in Case 3, where this imperfect organisation was most apparent, there was the most extensive tuberculosis of other organs, including tubercular tumour of the cerebellum and tubercular meningitis, and tubercle in lungs, liver, kidneys, and peritoneum.

Mr. CROFT considered that these cases raised seven points of interest. First, he thought there could be no doubt that the changes were really tubercular, and not simply inflammatory. Then, although it was impossible to be certain whether the tubercular affection was primary, and not preceded by any simple inflammation, he inclined to the opinion that there was some primary simple inflammation followed quickly—how quickly he could not tell—by tubercular growths. As to the question of infection from caseous deposits, in five out of the six cases there was no reason to think any caseous deposits pre-existed, but the joint lesion was really primary; but in the sixth it may be presumed that some caseous calcified mediastinal glands were of older date than the joint trouble, which was of two years' standing. Three died from general tuberculosis, suggesting systemic infection from foci in the joints. Again, if tubercle be non-vascular, and incapable of organisation, does not its presence constitute a strong argument for early removal of the diseased tissues? Quoting Volkmann, Köster, Cornil and Ranvier, Wilks and Moxon, in his support, he urged that there is a class of cases characterised by primary tubercular disease of the synovial membrane. In approaching the larger question of the existence of a true primary tubercular arthritis and its frequency, he quoted Erichsen, Holmes, and Bryant, as expressing the common view of English surgeons, that if ever found it is very unusual; and König, Bidder, Billroth, and Volkmann, as maintaining its great frequency. He hoped that further investigation would clear up this discrepancy, and strongly urged the importance of careful microscopic examination in all cases of excision for chronic joint disease.

Mr. MAKINS showed specimens of a case of Tubercle of Synovial Membrane from the Elbow-joint. The man had no history of tubercle or signs of tubercle elsewhere, and no affection of bone. The sinuses left since the excision are apparently affected in a similar manner.—Dr. D. POWELL asked if there was anything known of the family history, and whether there was any history of injury.—Mr. MAKINS could not find any trace of phthisis in the family, and there was no history of injury in the case.—Dr. POWELL said Mr. Croft's cases showed the effect of injury in determining the disease in certain positions, in the same way as gout or rheumatism might be localised. Other cases show the effects of disease of bone in setting up general miliary tuberculosis. Primary miliary tuberculosis of one joint was certainly a most striking fact, and required a very great deal of evidence in its support. None can doubt that the cases shown are really tubercular.—Mr. BRYANT could not deny that these cases are really tubercular; but was the disease in its origin tubercular? for, surely, the existence of tubercle in bones and synovial membrane is very rare. He had seen tubercle in synovial membrane with the same affection elsewhere, and these cases showed no special clinical symptoms. He thought that in these cases the tubercle was part of a general affection, and secondary to some earlier chronic inflammatory disease. A large number of old cases of joint-disease die from general tuberculosis or tubercular meningitis. He thought we ought not to set up a separate variety of diseases of joints tubercular in their origin.—Mr. GODLEE asked if in any number of cases of supposed tubercular nature these special structures had always been found; and in cases not supposed to be tubercular whether they had been present. In his examination of the granulation tissue of a joint, contributed to the Pathological Society in 1877, he did not meet with any signs of tubercular follicles, and he still adhered to his former hypothesis that the changes seen are merely a phase in the organisation of chronic inflammatory tissue.—Mr. BARWELL thought we ought to be careful in distinguishing tubercle of bone and synovial membrane from tubercle of inflammatory products. Many cases of disease of joints result from injury, they are very chronic, and in some there are caseous patches, but it is doubtful whether these are really tubercular. He did not think that tubercle of bone proper exists.—Mr. MACNAMARA, after repeated examinations, had found tubercle in a great number of cases in the cancellous ends of bones. He had found a tissue precisely the same as that called tubercle elsewhere, and especially in the synovial membrane of the ankle-joint. In cases of joint disease with continued high temperature, there is tubercle which will eventually infect the other parts of the body. The disease is most often set up in the soft tissues between the epiphysis and diaphysis, frequently from injury; but tubercle may occur primarily in the synovial membrane; most of these cases occur in members of tubercular families.—Mr. TREVES thought the specimens of bone were not conclusively tubercular, the giant cells there seen were not characteristic of tubercle. But the changes shown in the synovial membrane were undoubtedly true tubercles. He doubted whether Mr. Croft had made out his case in regard to bone.—Mr. CROFT had purposely omitted reference to the clinical symptoms of tubercular disease of joints, for we must first decide whether such a disease really exists. Mr. Bryant's cases had not been examined microscopically, and it must be remembered that what appear to be grey granulations seen with the naked eye may not be tubercle, and tubercle when present may not be seen without microscopic examination. The question really is what is the relation between tubercle and inflammation of joints? Can simple caseous degeneration give rise to tubercle? It was not one, but the collection of several characters that indicate tubercle. He was glad to have Mr. Macnamara's support, as he had made careful microscopical examinations. Only these six cases had been examined. In one other case the round ligament only of the hip-joint was examined, but was not tubercular, though expected to be so from its naked eye appearance.

Dr. ANDREW CLARK brought forward a specimen of Abscess of the Liver, which was of clinical rather than pathological interest. A man, aged forty, admitted into the London Hospital in November last, died in January. Good personal and family history; perfect health up to June, 1880. Then after leaving Calcutta he lost flesh and strength, and was feverish. At Durban an enlarged liver was detected. On admission Dr. Clark found nothing definite, and the liver smaller than natural; not tender. Other organs normal. He presumed he had matter somewhere, and probably about the liver. At his next visit he found a dry friction sound over base of right lung. He aspirated from the axilla from right to left, and after some trouble twelve ounces of purilage was extracted. For a week the man improved, but then he failed again. The liver dulness rose in front to nipple line, and higher behind. The base of lung was consolidated. The abscess was again aspirated from the front

two or three times without finding the pus. The man speedily died. A few days after the first aspiration the man coughed up a few pellets of purilage, containing bile pigment and elastic fibres. At the post-mortem the liver was found to contain a large abscess in the right lobe passing up as high as the root of the right lung, and many other small abscesses nestled in the liver. The colon was ulcerated in the cæcum and ascending colon, the ulcers being older below than above, but none of them of long duration apparently. Possibly the material of any causative emboli did not come from the ulcers. When the liver is small, and there are no tender spots, it is well to aspirate from right to left, as the abscess is in that way more likely to be reached. Friction is not a sign of adhesion of the two surfaces of a serous membrane. The abscess ought to have been opened at once when the fact of an abscess was once shown.—Dr. GREENFIELD asked if there was any displacement of the heart's apex, as that sign had assisted him to recognise an hepatic abscess spreading upwards. Were there any rigors after the first aspiration?—Dr. CLARK: The apex beat was normal. Fresh imperfect rigors and profuse sweats with irregular pyrexia occurred after the first tapping.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

Chronic Vomiting treated by Koumiss.—Gangrene of Arm from a Poisoned Wound; Amputation of Shoulder.—Sarcoma of Dura Mater, encroaching on left Tempero-Sphenoidal Lobe of Brain.

THE ordinary meeting of this Society was held on the 11th inst., Professor Lister, F.R.S., President, in the chair.

Dr. H. SUTHERLAND brought forward a case of Chronic Vomiting, in which no food was taken, except koumiss, for eighteen months. The patient, a girl, aged twenty-four, on admission had been for five years under his care at the St. George's Hanover-square Dispensary. The vomiting commenced one year and nine months ago, the attacks coming on at first only once a fortnight, but lately they had occurred always once, and sometimes five or six times a day. As far as could be ascertained there was no organic disease of the stomach, no tenderness on pressure, or cachexia, nor any other constitutional symptoms. Every known remedy was tried to allay the vomiting—bismuth, opium, hydrocyanic acid, creasote, carbolic acid, hyposulphites—all without any satisfactory result. All attempts to cure the case by dieting had failed, and the patient could keep nothing on the stomach, as food, except koumiss, which she had taken for sixteen months. She is, however, able to retain a quinine and orange mixture, and also sherry in small quantities; but brandy makes her sick immediately. The uterus was not displaced. The object in bringing the case before the Society was to ask if any member could suggest any remedies or mode of treatment in this distressing case. — Dr. JAGIELSKI had found koumiss of value in cases of intractable dyspepsia, improving the digestive organs, as well as allowing them rest from other food. Dr. Sutherland's case was, however, quite unique. He had never read of a case where koumiss was the only article of diet for eighteen months. The patient, too, would seem to have increased in weight, and the cause of the rejection of all other food was an interesting matter. Some cases of this nature do well on other remedies and on concentrated foods—e.g., where vomiting has continued for several days, especially when pure milk is rejected, buttermilk, sour milk, or whey can be retained. He was inclined to think that koumiss was best retained because it has undergone a double fermentation, the lactic and the alcoholic, and the casein, therefore, probably is intimately intermingled with carbonic acid, which would render it more easily capable of assimilation. The most difficult case he had had to treat by this means was one of phthisis; but the good state of nutrition of Dr. Sutherland's patient was most surprising.—Dr. BROADBENT said the case was interesting as showing that apparent health and good condition could be kept up on a diet of koumiss alone, and he asked what amount of work the patient did during the time. The case appeared to have all the characters of hysterical vomiting, and other features of the case, the mental irregularities, &c., pointed to the hysterical condition, by which he did not, of course, imply that hysteria meant mendacity, and she may have lived on koumiss. The case might be compared with the instances of "fasting girls" and such like.—Dr. ROBINSON inquired whether any local treatment, such as blistering to the epigastrium, had been employed.—Dr. W. ROGERS agreed with Dr. Broadbent's view of the case, and asked what were the mental states of the patient, and thought the uterus might be at fault. He had seen many cases of persistent vomiting due to uterine derangement.—Dr. B. O'CONNOR had a similar case under treatment for the last four months, and finally applied nitrate of silver to the os uteri, on the ground of the stated efficacy of that measure in the vomiting of pregnancy. The vomiting ceased, but afterwards returned. Milk diet gave no benefit, but cream was retained better, and small doses of Valentin's extract of meat. Dr. Sutherland's case pointed to pulmonary and uterine conditions being the cause of the vomiting.—Dr. WILBERFORCE SMITH asked as to the diet presented before the koumiss was resorted to. Success was best obtained by abstaining from nitrogenous food, and thus giving physiological rest to the stomach. This principle applied to organic disease of the stomach as well as vomiting of nervous origin. In such cases he had found cream and fatty foods retained, and also the essences of meat, which were devoid of nitrogenous material; or entire rest might be maintained by nutrient enemata. He mentioned a case of chronic ulcer, with dilatation, seen with Dr. Fenwick, in which this line of treatment was successful.—Dr. DOWSE asked how much koumiss was taken in the twenty-four hours. He thought the vomiting was of nervous origin, due to inhibition of the vagus; and suggested that fluid nutriment should be given up and the patient fed on solids for twenty-four or forty-eight hours.—Dr. SUTHERLAND, in reply, said that goat's milk, sour milk, and buttermilk had been tried unavailingly. The patient does no work, but is not confined to bed. She is sometimes very melancholic and sensitive, but not hysterical. He would try Valentin's extract, but nutrient enemata were of no use, and he did not think solid food would be retained. She took two pints of koumiss daily. He had not tried blistering to the epigastrium.

Mr. CHRISTOPHER HEATH narrated a case of Gangrene of the Arm from a Poisoned Wound, amputation at the shoulder, and recovery. The patient was a nurse, aged thirty-four, who, in laying out the body of a lady who had died of puerperal septicæmia, pricked her thumb with a pin. Notes of the puerperal case were given by the physician who had attended her, and it appeared that she was a primipara in good health, and was the first patient attended by the accoucheur after his holiday, and that strict antiseptic precautions were employed. On the fourth day a rigor occurred, and the temperature was 105°; pulse 120. Subsequently the temperature went up to 107°, but was reduced to 102° by an ice-cap and cold-water bed. On the seventh day, however, the left pleura filled, and the patient sank. A nurse in attendance pricked her finger on the day of the rigor, and had a sharp attack of lymphangitis with recovery. The second nurse carried out the attendance till the patient's death. This nurse applied nitrate of silver to the puncture on the evening of the day she received it, and the next day the hand was swollen and painful. She had no further advice until the fourth day, when she was admitted to University College Hospital with the whole arm swollen and tense. Free incisions were made, but the next day the hand and forearm had gangrened. At first the gangrene seemed limited to the forearm, and the swelling of the upper arm decreased for a few hours; but a relapse taking place Mr. Heath amputated at the shoulder-joint. The patient made a rapid recovery, and was discharged in a month. Mr. Heath remarked upon the virulence of the puerperal poison, and protested against the common practice of applying nitrate of silver to punctures received at post-mortem examinations. He believed that the application of belladonna was most useful in cases of local inflammation, coupled with free incisions, when necessary.—Mr. CRIPPS related the particulars of a similar case lately under Mr. Holden's care at St. Bartholomew's Hospital. A healthy, temperate man pricked his finger with gorse three days before admission. The thumb became swollen and painful, and the back of the hand œdematous. When seen the hand was black, and there was swelling half-way up the forearm. Free incisions were made into the palm and back of the hand, and a small quantity of thick-clotted blood and serum escaped. Two days later the swelling increased; but

after consultation amputation was deferred for twenty-four hours. At the end of that time the swelling had greatly extended, and Mr. Holden amputated at the shoulder-joint, through tissues already inflamed and swollen. Antiseptic precautions were taken, and the temperature fell from 103° to 99°. The patient improved for four or five days, but at the end of the sixth day he had a rigor, and the œdema extended to the neck. Incisions were small, but the cellulitis spread; the side of the face became black and gangrenous, and death ensued. Mr. Heath's case showed the advantage of early interference, and Mr. Cripps thought there should be more definite rules in surgery as to the indications for such interference.—The PRESIDENT said these cases confirmed the old surgical rule that, in spreading gangrene, amputation should be performed without delay. It was done in time in Mr. Heath's case, but not in Mr. Holden's. Koch's researches had shown that the condition depended on some organism. They proved that there were some organisms which produced a real blood disease—as the bacillus anthracis; others which caused septicæmia in a mouse; and another well-marked organism (occurring in chaplet-like rows), producing spreading gangrene—a progressive necrosis without general blood infection. Evidently in these cases the organism was one which tended to produce such local mischief rather than general.—Mr. HEATH said the rule of procedure was not only to amputate early in such cases, but also *high up*. The gangrene would spread in such cases as these unless the surgeon were prepared to amputate at the shoulder at once, without waiting for consultation, which deferred action.

Dr. WHIPHAM then read a case of small, Round-celled Sarcoma of the Dura Mater, encroaching on the left temporo-sphenoidal lobe of the brain, and producing extensive softening in its neighbourhood. A railway guard, aged thirty-five, was admitted into St. George's Hospital on January 25th, 1880. He had served on board ship in former years, and when in foreign parts had suffered from ague, dysentery, and acute rheumatism. At the end of December, 1879, he caught cold, had rigors and pain in the chest, and dyspnœa, but continued his occupation as a railway guard. During the fortnight previous to his admission he had been laid up with headache in the frontal region. About thirteen days before he came under observation he felt unwell, and became languid, and on the day following he shivered and felt pain in the frontal and temporal regions. The pain recurred in severe paroxysms with intervals of entire cessation of pain. On admission, the patient was well nourished, but somewhat dull and stupid; his tongue was coated; pulse 72, small; he had severe headache, and said he felt "stuffy in the head." The pain was referred to the left temporal region and to the left eye. There was a purulent discharge from the right ear, and Mr. Dalby reported a large perforation of the tympanic membrane. Shortly afterwards the patient became restless at night, and on the seventeenth day after his admission had passed into a comatose state, but still indicated by gestures that he was suffering pain on the left side of his head. Slight want of power in the right hand and leg was detected, but there was no real paralysis. The patient died on Feb. 24th. He was a left-handed man. At the post-mortem examination a lobulated tumour was found attached firmly to the middle fossa of the skull on the left side, and extended into the substance of the left temporo-sphenoidal lobe of the brain, involving or causing softening of the anterior parts of the three temporo-sphenoidal convolutions and the island of Reil. The softening extended to within one-twentieth of an inch of the level of the upper surface of the corpus striatum, but did not involve that ganglion. The important feature in the case was its bearing on the question of localisation of the functions of the brain. Although none of the motor centres were actually involved in the disease, it seems more than probable that the pressure exerted by the growth must, to a certain extent, have interfered with the functions of those convolutions situated directly in the line of such pressure. Thus may be explained the partial loss of power which existed in the right arm and leg, seeing that the upward pressure of the tumour would more especially affect the posterior part of the left superior frontal convolution, the upper part of the ascending frontal and probably part of the superior or posterior parietal lobule; those regions, that is to say, which Ferrier and others have shown to preside over the movements of the arm and leg. Further, the actual lesions which were demonstrated at the autopsy tend to show that the deafness in the right ear was the result rather of the injury to the brain than of the perforation of the tympanic membrane. Finally, the facts of the patient being a left-handed man, and the injury to the brain being on the left side, are interesting as bearing on the question of aphasia.—Dr. WILTSHIRE asked if any opthalmoscopic examination had been made. He had recently seen a case supposed to be puerperal mania, where, however, a chronic discharge from the ear had ceased the day after confinement, and he concluded that the case was one of meningitis due to extension from the ear. The patient died five days after the cessation of the discharge. No post-mortem was obtained.—Dr. ALTHAUS asked whether the condition of smell and taste had been examined, the centres of which appeared, from Ferrier's researches, to be in the superior sphenoidal convolution.—Dr. DOWSE asked whether the pain was localised to the side affected, or did it extend over the head, down the neck and arm. In several cases he had found pain thus radiating over a wide area, and a more or less paretic condition to exist on the side on which the tumour was growing.—Dr. BROADBENT said the case illustrated the fact of a tumour attaining a considerable size without any ill effects. The symptoms were those of an acute disease and not a chronic one, and probably corresponded with the time at which softening set in. The disease did not involve the centres of taste and smell, but did attack those of hearing; and hence the observation of deafness was of interest. The case would have been even more interesting had the man not been left-handed. He would attribute the paralysis to pressure on the corona radiata containing fibres from the motor centres. Some observers would shift the speech centre from Broca's convolution to the island of Reil; but when the latter is involved, fibres coming from that convolution are cut off. It was remarkable that there was an entire absence of vomiting in the case. If it came to be that tumours so situated were not attended with vomiting, another important localising fact would be established.—Dr. SILVER said that it would be interesting to know in these cases how deep the lesion required to be as regards Broca's convolution. In a case which had been under his charge, and where there was no paralysis, the surface of the left inferior frontal convolution at its posterior part was decidedly softened; the island of Reil to a much greater and more marked extent. There was slowness of speech, together with a certain amount of difficulty, depending on dulness, but there was no aphasia in the strict sense of the term. The suggestion by Dr. Broadbent that the radiating fibres might be intersected by diseased structures would tend to do away with the necessity for localising all such conditions in connexion with the left inferior frontal.—The PRESIDENT asked whether Broca's convolution was at all affected in Dr. Whipham's case, or only the island of Reil.—Dr. WHIPHAM, in reply, said that no ophthalmoscopic examination was made. The pain was chiefly dull, on the frontal and left temporal regions, and in the left eye. No vomiting occurred from first to last. There was no apparent lesion of Broca's convolution, but the island of Reil was entirely softened.

Mr. GODLEE showed the patient whose case had been brought before the Society by Dr. Sturge and himself early in the session, when he had stretched the facial nerve for spasmodic tic. The operation took place thirteen weeks ago, and was followed by facial paralysis until five days ago, when power began to return.—The PRESIDENT remarked that the interest was that so long a period should have elapsed before the return of function, and it would be further interesting to learn if the twitching should also return.

The Society then adjourned.

[Press of matter compels us to postpone the publication of reports of the Medical, the Obstetrical, the Epidemiological, and the Harveian Societies.]

ON Tuesday the Duchess of Edinburgh paid a visit to King's College Hospital. Her Royal Highness was received by General Sir Richard Wilbraham, Chairman of the Committee of Management, and was attended in the wards by Dr. Playfair and Dr. Beale, Professors Wood and Lister, surgeons of the hospital. Her Royal Highness the same afternoon visited the General Lying-in Hospital, York-road, accompanied by Lady Harriot Grimston and Dr. W. S. Playfair. She was received by the Chairman, the Treasurer, the Secretary, and the physicians to the hospital, Drs. John Williams and F. H. Champneys. Her Royal Highness was conducted through the different wards by Mrs. Clarke, the Lady-Superintendent.

Reviews and Notices of Books.

Mittheilungen aus der Ophthalmiatrischen Klinik in Tübingen. Herausgegeben von Dr. ALBRECHT NAGEL. Zweites Heft. 1880. pp. 118. Tübingen: H. Laupp. This part is entirely occupied with a paper by S. Rembold on the important subject of the movements of the pupil, and their significance in diseases of the central nervous system. That the conditions of the pupil are extremely valuable in assisting diagnosis in various states of the system has long been known, yet it is rare in treatises of medicine to meet with precise and express statements in regard to the size of the pupil and the mobility of the iris; and it is still more rare to find the sharpness of vision and the state of the fundus even alluded to, much less accurately given. Rembold's work, which is an enlarged prize thesis of the University of Tübingen, is an endeavour to supply information on this neglected point. He commences his description with an account of the anatomy and physiology of the iris, in which the literature of the subject is given, and devotes the remainder of the work to the consideration of the condition of the pupil in regard to size and mobility in various conditions of cerebral and spinal disease. He finds that pupillary symptoms are not of very great importance in aiding the diagnosis of diffused cerebral disease, so long as the conditions of the pupil are alike on the two sides, and that motionless pupils are of more serious import than contracted ones; but if one pupil is more dilated than the other, and simple hyperæmia or anæmia be excluded, it may be presumed that, in such cases of diffuse disease, exudative processes affecting the meninges on one side more than on the other are present. On the contrary, the conditions of the pupil are of great importance in cases of local disease, and of progressive degenerative processes in the brain—indicating, to some extent, the position of the disease and the prognosis that may be given. Tumours in the cerebellum are frequently associated with mydriasis, but also sometimes with myosis. In regard to spinal diseases myosis may be the expression of diminished activity of the spinal cord, and mydriasis may be a symptom of irritation of the cord, occasioning contraction of the dilatator and of the vessels, owing to stimulation of the sympathetic.

Handbook of Chemical Physiology and Pathology. By VICTOR C. VAUGHAN, M.D. Third Edition. Ann Arbor Publishing Company. 1880. — The rapid succession of editions of this work indicates that the study of physiological and pathological chemistry on the other side of the Atlantic is being pursued with interest. The revival of humoral pathology is one of the great features of the present day. In Germany and in America great progress has been made in this direction, and signs are not wanting that more attention will be paid in England to this branch of scientific inquiry than has hitherto been the case. Dr. Vaughan's work is a trustworthy guide, plainly and unaffectedly written. It is probable, however, that had the third edition not been called for so soon after the second the author would have had more time to revise certain portions of it and import into its pages some of the more recent observations. To be a little behindhand, however, is no fault in a work purporting to be a text-book. It is undoubtedly better for a student to confine himself to well-ascertained facts than to expend labour in wading through a mass of unverified observations. For the worker engaged in original research, however, a summary of what is being done by others in the same subject is very useful. It would be well, therefore, in forthcoming editions, if Dr. Vaughan gave in an appendix a reference to such work. In this way the student's attention would not be distracted from the consideration of actual facts, whilst those engaged in original research would be able to judge what others were doing in the same direction.

The Journal of Anatomy and Physiology. Conducted by Professors HUMPHRY, TURNER, M'KENDRICK, and CREIGHTON. Vol. XV. Pt. 2. January, 1881. Macmillan and Co.—The chief articles contained in this part are—1. The Bones, Articulations, and Muscles of the Rudimentary Hind Limb of the Greenland Right Whale (Balæna mysticetus), by John Struthers. 2. An Infective form of Tuberculosis in Man identical with Bovine Tuberculosis, by C. Creighton. 3. Case of Medullary Neuroma of the Brain, by Dr. W. Osler. 4. Dissection of the Genito-Urinary Organs in a case of Fissure of the Abdominal Walls, by Alban Doran. 5. Description of a Polygraph, by David Newman. 6. Remarks on the Mechanism of the Secretion of Sweat, by C. Handfield Jones. 7. Anomalous Growth bearing Pilose Skin in the Pharynx of a young Woman, by P. S. Abraham. 8. The Histology of Granular Kidney, by Robert Saundby. 9. Notes on two cases of Cerebellar Disease, by Thomas Oliver. 10. Some Observations on the Colouring Matter of Jelly Fishes, by Professor M'Kendrick. 11. The Nerves of the Hind Limb of the Thylacine and Cuscus, by D. J. Cunningham. 12. Pulse Dicrotism, by W. Fleming; and, lastly, some Anatomical notices.

The Journal of Physiology. Edited by MICHAEL FOSTER. Vol. III. No. 2. January, 1881. Published at the Cambridge Scientific Instrument Company's Works. — This number contains—1. An article, by S. H. Vines, on the Proteid Substances contained in the Seeds of Plants. 2. Sydney Ringer, on the Influence of Season and of Temperature on the Action and on the Antagonism of Drugs. 3. Charles S. Roy, the Elastic Properties of the Arterial Wall. 4. Isaac Ott, on Crossed Hyperæsthesia, and notes on Inhibition.

The Popular Science Review, Jan. 1881. No. 17. Edited by Mr. J. DALLAS, F.L.S. D. Bogue.—This number contains four original articles. The Planet Jupiter in Oct. and Nov. 1880, by W. F. Denning. The Anatomy of the Stag Beetle, by A. Hammond. On Fog, by W. H. Stone, and Some Facts about Fishes, by Mr. Dallas. The paper on Fog, by Mr. Stone, is interesting. He combats Dr. Carpenter's statement that fog is essentially due to carbon particles diffused through the air; for if foggy air be passed through a cotton-wool filter the gain in weight of the filter is very slight; and, again, the microscope shows even a diminution in the number of particles ordinarily present in clear weather. He observes that the weight of carbon in a cubic foot of black smoke is not equal to a single grain, and believes that whilst London fogs are deepened or darkened by the carbon present, they are mainly attributable to climatic conditions. Various suggestions are noticed for the diminution of smoke with the retention of our present open hearths. One of the most feasible, perhaps, is that a form of coke should be introduced into common use, in which the gases should not have been so completely extracted as at present, and which, whilst still yielding a paying amount of gases and ammoniacal compounds, should yet retain sufficient to give a cheerful fire when burnt in an open grate. Another plan, which seems to us reasonable, but which we do not remember to have seen noticed, is that the chimneys containing unconsumed gases might in new houses be made to open beneath the kitchen grate, which would be fed by them, and would thus, by burning the carbon, materially reduce the quantity of it thrown into the atmosphere. It appears that five millions of tons of coals are annually burnt in the metropolis.

The Plumber and Sanitary Houses. By S. S. HELLYER. London: B. T. Batsford.—It is a good sign that works on the technical arts which ensure health in our houses are

issuing from the press almost daily, and we may hope before many more years have passed that the journeyman plumber will be armed with so much knowledge of the evils of bad workmanship and ill-devised apparatus that even he will try to help and not to hinder the work which all sanitarians have so much at heart. The volume which is the subject of the present notice is written by a member of an eminent firm of plumbers, and although the view taken of the questions dealt with appears to be that which is only natural in one who is a plumber, a tradesman, and a patentee, the amount of information to be gleaned from it by those who have mastered some of the principles of sanitation is very large indeed. It is somewhat alarming to note the ever-increasing complications of our dwellings. Each constructor pursues his own method, and then exerts his ingenuity to conceal from the purchaser or dweller what his intentions may have been. The book is well got up, is nicely printed and profusely illustrated, and is likely to be of service to builders and health-officers, whether medical or otherwise.

Streets' Indian and Colonial Mercantile Directory for 1880–1. London: G. Street & Co., Cornhill, and Street Brothers, Serle-street.—In these days, when the relations of British medical practitioners with the Colonies and India are more extensive than ever, and health resorts are sought in every quarter of the globe, such a reference-book as this is almost indispensable even to the medical profession. In addition to trade returns, tariffs, and facts regarding populations, Streets' Directory contains particulars of the steam and other communications with the various places named, together with the times and rates of transit, &c. The names of physicians and surgeons resident in the towns and cities of the Colonies and India are given, with information of all kinds likely to be useful to those who are intending to go out, or who have professional or commercial connexions with our colonial possessions. Maps also are furnished of all the principal countries of which particulars are given in the letterpress.

House and Home: a Journal of Social and Sanitary Information for the People.—The number of this useful and unpretending penny journal for the 22nd January gives Professor Fleeming Jenkin's lecture on "Sanitary Houses," delivered before the Society of Arts on the 12th January, in full; a biography of Mr. George Smith, the friend of our canal population and of our outcasts generally; and numerous instructive items on social and sanitary matters.

MEDICAL EDUCATION.

To the Editor of THE LANCET.

SIR,—The sub-committee appointed by the British Medical Association for the purpose of inquiring into the vexed question of medical education have issued their report, which is now in the hands of the individual members of the Association. Personally I think it is a matter of regret that the members of the Committee have given so little attention to that all-important subject—the clinical teaching of medicine and surgery. Doubtless the entire machinery of medical training requires reform, if not complete remodeling; but before this, which must of necessity take time for its accomplishment, can be brought to pass, cannot anything be done for the better training of our medical students?

As matters now stand, all we can hope for is that the student contemplating merely a pass degree should be launched as a practitioner well acquainted with general principles of medicine and surgery. At present our Examining Bodies fail to guarantee that this shall be so; or perhaps I should rather say, there are unfortunately so many loopholes available to the student anxious to avoid our higher diploma granting bodies, that many a degree can be now obtained which, as an index of knowledge, is worthless. Powerless as our professors are to prevent the half-educated student from practising his profession upon his fellow-creatures, still they hold in their hands that monopoly of material which enables the student to present himself before the examining table; and whether the standard of the examiner be high or low, it should be incumbent on the teacher to secure that each individual student should be compelled to submit to a course of clinical instruction in medicine and surgery, which would, at any rate, be some security that in future practice the rudiments of his profession are well known. Of the vast mass of material which our teachers have ready at their disposal for the purposes of clinical teaching, it would be idle now to speak. Could not this wealth of material be better utilised?—utilised so as to prove not only of more benefit to the student, but assuredly in no less direct degree to the public, who have so large a stake in the careful training of our medical men.

Speaking generally, the clinical teaching of our hospitals and schools is defective—defective in principle, from the fact that it obeys no system, and often drifts into mere desultory repetition of the history and symptoms of the patient under notice. Every observant physician must, I think, recognise the patent evils of our medical course. Though at the moment powerless to alter the regulations of our examining bodies, it remains for our professors to see if more cannot be done in improving the efficiency of our students, as regards their knowledge of the natural course of disease, and in relation to its recognition, its treatment, and, above all, its prevention. That our medical students are harassed beyond description by lecture after lecture, the accumulative benefit of which amounts to but little, is continually forced upon our minds; but still that all-important subject of professional education, the study of clinical medicine, remains unhampered. Might not more be done to improve the instruction received under this head? For instance, might not our out-patient rooms be used more freely as fields for teaching in a systematic manner the rudiments of medicine and surgery? No better ground could be found for inculcating lessons as to the very first commencement of disease; but for such teaching to be carried out with good result there must be not only systematic teaching, but systematic attendance on the part of the student; in other words, compulsory attendance on a systematic course of clinical teaching.

Such class instruction once commenced, it would be easy for the physician in charge to produce a syllabus of work to be gone through during term. By an arrangement of coloured tickets a series of cases would follow one after the other into his room, and the student would thus have the advantage of not only comparing the different types of disease, but, perhaps what is of greater importance, of noting, in rapid serial order, the various stages of disease, with their attendant degenerations and complications. By some such organised system as this the physician might be expected to take greater pleasure in his work, which now but too often resolves itself into mere perfunctory accomplishment of duty. His work would become more definite, more exact, and far more productive of good, both to himself and to his class. He would be acquainted beforehand with the work of the day, and would have the advantage of coming primed as to the subject for discussion. Developing the system but little, students would have the means of knowing that on such and such a day cases representing diseases of the heart, lungs, kidney, &c., would be followed in detail, and manifestly, so studied, must prove of far greater value than seen, as they are now, intermingled with cases of but little comparative interest.

Moreover, by a pre-arranged division of subjects each physician would be enabled to select that class of case to which he desired to give special attention, and by knowing the requirements of his colleagues would have the opportunity of passing on those patients whose diseases might offer any special point of interest to them. Carrying the same system into the wards a definite series of cases would be particularly examined at each visit of the full physician, who would have a class awaiting him far better prepared as regards the fundamental principles of medicine than now appears to be the case.

It had been my original intention to have sketched more in detail the scheme which I have but shadowed above—a scheme which, if carried out in its entirety, would give opportunity, for both physician and student, of making far more practical use of that precious mine of clinical material which only the work of a large hospital can give.

I am, Sir, yours obediently,

Green-street, Park-lane. D. W. CHARLES HOOD, M.D.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 19, 1881.

THE physicians of Boston, United States, have inaugurated a measure of internal reform which the medical profession in England would do wisely to imitate forthwith. They have formulated a provision of their ethical code to the effect that "a physician should not append his name, or permit it to be appended, to certificates in laudation of speculative health resorts, health excursions, nutritive or dietetic preparations, proprietary formulæ, wines, mineral waters, beverages of real or supposed medical efficiency, or other hygienic materials." This is a sweeping and practical, but highly necessary, act of self-purgation that the body to which we belong, and in the name of which we claim to speak, sorely needs, and which would sensibly enhance its social and scientific status. The growing practice of attaching the names of members of our cloth to articles sold to the public has reflected no little discredit on the profession in general, and on the individuals who have lent themselves to the more than equivocal practice at which this timely resolution has been aimed. It is not important to inquire whether we in England or our brethren in America or on the Continent are the greatest offenders; let it suffice to recognise that the procedure is an offence. There can be no room to question what the giving or lending of names, colourably to accredit the places, remedies, and appliances with which they are connected, *really* means, and to what it amounts. The name of the person is more in request and estimation than the name of the locality or article to which it is prefixed or appended. When a physician allows himself or others to affix his *imprimatur* to anything which is destined to be advertised, he is plainly permitting *himself* to be advertised. It is useless to mince matters. This is the long and short of the proceeding. Unless, therefore, the medical profession is prepared to place itself on the footing of a fraternity of tradesmen, advertised and recommended by the goods they sell, a stop must, in some way, be put to this form of touting.

We are not disposed to adopt impracticable views of the professional life and its permanent interests. It may be assumed that physicians must live, and live by their calling; but there are two totally distinct and divergent ways of seeking prosperity. The practitioner may strive to make good his reputation by the diligence and excellence of his work, or he may resort to forced and artificial means of acquiring publicity. Practically there is little, if any, difference between allowing a name to be emblazoned on the label of proprietary medicine, or printed at the foot of a testimonial to the excellence of some article of commerce, or inserted in the pages of a guide-book, and displaying it on handbills to be distributed in the street. We will not hesitate to say that when, as happens nearly every week, we are asked to denounce the "unprofessional conduct" of some struggling practitioner who, perhaps, touts for patients by the distribution of printed cards or handbills, we are bound to remember that some of the best known names in the profession are advertised in a fashion not one whit less objectionable. It may seem more respectable to advertise indirectly and under cover of giving a guarantee to the value or purity of some drug or dietetic compound, than to vaunt the skill of an individual directly, but the practical question involved is at the most only one of method. The deed done is the same under all its various forms and disguises. We do not find barristers courting publicity in this way. Why should physicians and surgeons, and the practitioners of medicine generally, be less jealous of the dignity of their calling than those who practise in the law? It is time to look this question of internal reform fairly in the face, to recognise this artifice in its true character, and to reform it altogether.

No man ever made a lasting and honourable reputation in the practice of the healing art who did not first and chiefly owe his fame to the profession of which he was a member. The medical body is not grudging in its acknowledgments of merit; and as a rule its judgment of men and their work is characterised by justice and strict impartiality. Only those who have failed or, in their impatience of the legitimate road to success, have resorted to by-paths and equivocal devices complain of a too tardy recognition. Let the conscience of the practitioner decide this question for itself. Where shall we find any notable number of instances in which genuine ability has had to go a-begging for favour, or true and honest work failed to command respect? There may be instances in which individuals have had to stem the tide of adverse fortune; but if they have not by their own folly or awkwardness missed the flood, they have not failed to reach the desired haven of prosperity. Young men are ever to the fore, and if the elders sometimes seem to lose their footing, that is because they are either remiss or too adventurous, and in their anxiety to keep the lead blunder into deep water. Looking to the reasonable prospects of success with which men enter the medical profession, they will be found, on the whole, to succeed. And the only success worth waiting and striving for is that which attends the man who has so discharged his duty in life as to command the respect and confidence of his fellows. The appeal for recognition lies to the profession itself, and not to the public. The popular voice can only echo the opinion of the profession. The lay community has no means of judging whether a physician is worthy of its confidence except by the results of his enterprise. It is nothing to be widely known or much talked about unless the profession ratifies the opinion which finds expression. The story of the lives of the most successful members of our body would show that the recognition of their interests was first made by their brethren. Speaking generally, we may say that a professional man's repute is well advanced in his own circle before the outside public even hear of him. Those err grievously who think or act as if they thought the profession would accept and honour them, because they had by some stratagem contrived to make their names household words with the community. Such men may be notorious, but not in any worthy sense famous; nor are they commonly—in the long run—successful. It is neither possible to force a reputation in medicine nor to secure the permanent favour of the lay community, except by the countenance and favour of the profession.

There are, moreover, grave and public reasons why the profession should especially set its face against the form of advertising which the physicians of Boston have just stigmatised as unprofessional. A wrong impression is conveyed to the public, and the lay community is misled. The unreflecting are apt to think that if a particular physician has been solicited to give his testimonial to any special article of commerce, he must needs be himself possessed of exceptional powers of judgment in respect to the matters accredited. A moment's consideration will show how easy it would be for a man acting on this suggestion to create a fictitious reputation for his name by gratuitously attaching it to a few judiciously-selected articles. We do not assert that reputations have been made in this fashion, but it is easy to see that they might be so created, and though they would be bubble reputations, unendorsed by the judgment of the profession, it is necessary in the public interests to discourage a practice which may possibly give rise to such untoward results. Every physician of genuine repute and real ability who allows his name to be paraded as the guarantor of a remedy or appliance is personally augmenting the facility with which men of no mark or ability may, by following his lead, come to stand by his side as respectable authorities before an uninformed public. The profession owes it to the community to prevent the possibility of this form of imposture. Again, by lending their names to tradesmen physicians expose themselves to the obvious risk of giving a false character to goods of pretended quality. It is manifestly impossible to ensure that any sample of an article submitted for the judgment of an expert shall be a fair specimen of the commodity in bulk, or that another issue under the same name shall be of equal value. This is a most important consideration, and we venture to think it is one which ought to deter the members of an honourable profession from lending or selling their names for trade purposes. It is, in fact, impossible that any certificate or testimonial can really hold good for any specimen except that to which it immediately relates—that is, the particular sample supplied. The loan of the name for use in the future is therefore an act which can only be characterised as one of moral hardihood and social temerity. It is no part of good citizenship to make the venture.

Look at the matter in what light we may, whether as a piece o personal advertising or indiscreet guaranteeing, it is indefensible and unworthy. We wish there were the smallest ground for hope that the Royal College of Physicians would be stirred to emulate the vigorous self-purgation so gracefully achieved by the physicians of Boston. Unhappily there is not the remotest probability of the dignified but lethargic corporation in Pall-mall being aroused to healthy activity by example or remonstrance of any kind. Nor is the Royal College of Surgeons without responsibility in this matter. It includes, among its members, men whose names figure conspicuously in the public prints. The profession must act for itself if it is to be cleared of a standing reproach, and its honour is to be vindicated. Personal action may do much, but there must be concerted action if all that the occasion demands is to be accomplished. It would be well if something like a *pronunciamiento* of the medical profession in relation to this question could be elicited. What the physicians of Boston have done, the physicians of the United Kingdom can do. Let those who have sinned in this matter sin no more, and let those who have not as yet flagrantly offended resolve to avoid offence. It will be well for the profession, and for the interests of commerce too, when the practice of giving and vaunting medical testimonials, and parading the names of physicians and practitioners in the manner denounced by our brethren across the Atlantic, is finally abandoned.

AT the time of our writing we have good reason to believe that the Government has not decided on the appointment of a Royal Commission for the purpose of settling the questions connected with the amendment of the Medical Act of 1858, to which two or three Governments have been committed, as well as the Medical Council and the whole of the medical profession. A leading contemporary was at least premature in speaking confidently as to such a step. It is no doubt true that the Government have some thought of such a course, and it is possible that the opponents of reform may think in this way to prolong their untenable position, and perhaps to postpone indefinitely those changes which, in the estimation of all outside, are needed in the Medical Council and the medical examining system of the country. But we repeat that our contemporary was in haste in the matter.

We hope the Government will deliberate well before taking a course which seems to unsettle everything and to cast discredit on so much good evidence. Is it possible for the case of the Medical Council and the existing corporations to be set forth by better witnesses than Dr. ACLAND, Mr. SIMON, and Sir JAMES PAGET? Can the inefficiency of the Medical Council, the inequality of the examining boards, and the defects of the best of the corporation examinations be made more clear than by the admissions of these witnesses, and by the unrefuted statements of the few who have yet been examined on the side of reform? Is all this evidence to be disregarded and wasted, when the examination of a few more witnesses would complete the case? We certainly fail to see the necessity. There may be an indisposition on the part of the members of the present Parliament, excited and distracted by other questions, to complete an investigation very well begun, and the break in the continuity of the inquiry by the dissolution of Parliament may justify the creation of an entirely fresh one. But these are points really very doubtful, and worthy of the consideration of the Government, which we believe will be accorded to it.

At the same time, if a Royal Commission is to be nominated, we shall heartily bow to that mode of investigating a question which we must admit to be technical and seemingly difficult, though—apart from pecuniary and corporation considerations—exceedingly simple. A Royal Commission has certain advantages over a Select Committee. It is not necessarily confined to members of Parliament. Any suitable person can be nominated a Royal Commissioner. Its investigations are not suspended when Parliament is sitting, as in the case of a Select Committee. It can continue its work in the interval of the sessions. These are the chief differences between the two modes of inquiry, and perhaps they show a balance of advantage on the side of the Royal Commission, if it be well and impartially chosen. It is of course very easy to elect a Royal Commission that will see

nothing but beauty and perfection in the actual and traditional, as any other form of inquiring body. But we have some confidence that the Government, if it accepts the responsibiltty of disregarding all that has been said and done in this cause for ten years past, will elect a Commission so fair and so strong in its intelligence and impartiality as to hold out a prospect of the termination of a "schism in the medical profession," as Mr. SIMON has called it, and of a controversy of which we, at least, are heartily tired. We repeat our conviction that a Royal Commission is unnecessary; that the facts are admitted or indisputable; that a Select Committee should be able by the middle of May to present an admirable report laying a secure foundation for sound legislation. But believing in the anxiety of the Government to do what is right in regard to old and in some instances perfectly effete corporations, and to a most costly and inefficient Medical Council, we shall bow to its decision.

THE elasticity of the arteries, though it is well known to exert a powerful influence on the circulation of the blood, has hardly been studied with the attention it deserves. ED. WEBER was the first to institute the ingenious comparison between the elasticity of the arteries and that of the air in the air-chamber of a fire-engine, and to show clearly that its principal action is to convert the intermittent flow caused by the rhythmical contractions of the heart into a comparatively uniform and continuous current; but few have occupied themselves with determining with precision the degree of elasticity in particular vessels, the extent to which they yield on pressure, and their resistance to rupture. MOENS, indeed, found that the elasticity was equal in the longitudinal and transverse directions, and that its coefficient increased with the weighting. VOLKMANN observed that the carotid of a sheep sustained without rupturing a pressure of 2·25 meters of mercury, which is about fourteen times greater than that of the ordinary blood-pressure. All experimenters agree that the elasticity of the arteries is very perfect, though small; that is, that whilst they are easily extended or compressed according to the mode in which the force is applied, they recover their original form very perfectly.

Dr. ROY has just made an important communication to the subject in the pages of the last number of MICHAEL FOSTER'S *Archives of Physiology*. He states that he entered upon the consideration of the elasticity of the arteries with the view only of determining by direct experiment the relation that exists between the intra-arterial pressure and the cubic capacity of any given portion of artery; but as he continued to work at the subject new points arose, the examination and discussion of which have led to the publication of the present memoir. In the first place, he finds, with WERTHEIM, that whilst inorganic substances, such as metal wires or glass rods, extend in proportion to the weighting—at all events within certain limits,—in the case of moist animal tissues the increments in length produced by the addition of successively increasing weights diminish gradually in proportion to the weights employed. Dr. ROY next proceeded to investigate whether the thermo-elastic properties of animal tissues were identical with those of inorganic substances. Now, with one or two exceptions, all bodies on being compressed become warmer, and on being stretched cooler. But the animal tissues agree with the exceptions to the rule—to wit, bismuth and caoutchouc—in becoming warm when stretched, whilst their temperature falls on being relaxed.

On examining by experiment the relation between the internal pressure and the cubic capacity of the arteries, Dr. ROY found that the aortic walls are most elastic at pressures corresponding more or less exactly to the normal blood-pressure, and no difference can be detected in the degree of elasticity between the time of death of the animal and the period when putrefaction has commenced. The elastic properties of the arteries taken from different animals, even of the same species, may vary considerably, and still greater differences result from malnutrition, such as that produced by febrile processes. But in a functional point of view it may be said that the elastic properties of the aorta and large arteries of any given animal are identical, so that the ratio of increase of volume to increase of pressure is the same in the aorta and its branches. Dr. ROY in subsequent sections discusses the effects of disease and of age on the elasticity of the arteries, and demonstrates by diagrams the considerable modifications that are produced by diseases affecting the general nutrition, and the fact that the elasticity is perfect only in childhood. The whole paper is a valuable contribution to our knowledge of this subject.

THE aims of the forthcoming International Medical Congress are very properly purely scientific, and we trust that much advancement in the science of medicine may be effected by the discussions on various topics which are to be conducted in London in August next by so many illustrious medical professors. The Congress has not been forgetful of the adage that the mind is reached more quickly through the eye than through the ear, and accordingly a museum of objects of scientific interest will form, as it were, one of the sections of the Congress, a section which will have intimate and necessary relations with all the others. The Museum Committee of the Congress felt very strongly that its work lay mainly in collecting pathological specimens illustrative of discussions which were to take place in the other sections; but, on the other hand, it felt that in the wide domain of medicine there were many other objects — new inventions, new instruments, new drugs, and the like—which ought to be exhibited to the members of the Congress. The extension of the museum beyond the domain of pure science was, however, a difficult matter. Besides the difficulty of selection and the invidious duty of rejection there was the still greater difficulty of finding space sufficient for anything like a complete exhibition of what one may call the medical industries. When, therefore, the hon. secretary of the Parkes Museum made the suggestion that possibly the Committee which he represented might be willing to organise an exhibition illustrative of every branch of the medical and sanitary sciences, that suggestion was welcomed by the Museum Committee of the Congress and met with unanimous support from the Executive Committee of the Congress, to which the matter was referred. When the Executive Committee of the Parkes Museum, backed by the Executive Committee of the Congress, made application for space to hold the proposed Exhibition in the Exhibition Buildings, at South Kensington, the Royal Commissioners

for 1851, feeling no doubt that the proposition was one which met with the cordial approval of the heads of the medical profession in this country, gave their ready assent, and promised to place at the disposal of the Parkes Museum Committee all their available space in the buildings at Kensington gore. Thus it has come about that an International Medical and Sanitary Exhibition on a scale probably never before attempted is to be held in London in July and August next.

The Parkes Museum Committee have, wisely, we believe, instituted a Special Committee for the purposes of the Exhibition, and this Committee—with the President of the College of Surgeons as its chairman, and numbering among its members the President of the Pharmaceutical Society, six physicians and surgeons from five different medical schools and hospitals, together with other members eminent as architects and sanitarians,—is, we think, likely to command the confidence of the profession and those who are interested in the various industries connected with medicine and hygiene.

The Exhibition will open a fortnight before the sittings of the Congress commence—namely, on the 16th of July—and will close on August 13th, five days before the termination of the Congress. The exhibits, which will comprise everything that is of service for the prevention, detection, cure, and alleviation of disease, will be arranged in two chief sections, Medical and Sanitary, and a third Miscellaneous section, in which, we doubt not, anything that is of interest to the medical profession will be able to find a place.

The Medical Section will include surgical instruments and apparatus; appliances for the ward and sick room; drugs, disinfectants, dietetic articles, and mineral waters; electrical and optical instruments, and other apparatus employed in the investigation of disease; appliances used for the treatment of the sick and wounded during war, street ambulances, &c.; appliances used in teaching medicine, books, diagrams, models, &c. The Sanitary Section will include domestic and hospital architecture; ventilation, lighting, warming, and decoration; sewerage, drainage, waterclosets, sinks, baths, &c.; water-supply and filtration; health resorts, sanitaria, &c.

The Exhibition is to be international, and we understand that every effort is being made to make it known on the Continent of Europe and in America. The secretaries of the Congress have, at the suggestion of the secretary-general, undertaken to circulate the prospectuses of the Exhibition, printed in English, French, and German, with the various documents which they are scattering broadcast over the world, and this in addition to other means will certainly secure a good representation of foreign exhibitors. We trust this will be so, and we hope that such a chance of learning whatever our foreign brethren have to teach will be appreciated by manufacturers in this country. On the other hand, we hope it will be remembered that this country has a reputation to maintain. English manufacturers have been in great repute throughout the world for a century past. In the art of practical sanitation we have for a long time stood alone; English cutlery has ever been regarded as the best that can be obtained. England, with its thousands of ships and colonies extending to every corner of the earth, is the great market for the various organic and mineral products which form the staples of pharmacy. Thus our foreign guests may fairly expect to find that the English exhibitors have provided an instructive show worthy of a nation which is nothing if not practical; and we trust that English manufacturers will be put upon their mettle, and will remember that it is their duty to see that our reputation is maintained in the eyes of our foreign guests.

Annotations.

"Ne quid nimis."

HÆMORRHAGIC SMALL-POX AMONG ESQUIMAUX IN PARIS.

IT is not often that an opportunity is afforded of witnessing in Europe the effect of acute specific diseases on individuals of races which have been little exposed to their action. Such an opportunity was, however, presented lately by a sad epidemic of small-pox among some Esquimaux who had come for exhibition at the Jardin d'Acclimatation, where they arrived from Crefeld on January 2nd, having previously been at Darmstadt, Frankfort, Prague, and Berlin. One of the troupe, a girl aged sixteen, had died at Darmstadt, twelve days after leaving Prague, without presenting any eruption. At Crefeld a woman of forty died, also without any eruption, and a young child, who died on the second day after the appearance of a distinct eruption of small-pox. Four or five days after their arrival in Paris the rest were vaccinated, on the 5th and 7th of January. All were ill, and as a young child presented an eruption, they were all sent to the small-pox ward of the Hôpital St. Louis, under the care of Dr. Landrieux, who has related the cases in *L'Union Médicale*. The variola began in all before or immediately after vaccination, and hence this had no effect. They all (eight in number) died, three in the period of invasion, without skin eruption, but with intense headache and pain in the back. Four others died during the period of eruption, and all presented almost continuous hæmorrhage from the bronchial tubes, and passed urine which appeared to be pure blood. The eruption came out slowly, the pustules being distended with blood, and some had the appearance of bullæ of pemphigus. The temperature varied between 103° and 105°. In one of these cases also there was no rash; death occurred without delirium by septicæmia or asphyxia. The unfortunate men had led temperate lives, and had not been addicted to alcohol. In four cases post-mortem examinations were made. The internal organs presented abundant hæmorrhages. The blood presented a large excess of leucocytes, and the red corpuscles were, as is usual in such cases, crenated, and did not form rouleaux. The liver in each case was enormously enlarged, pale, and friable, and offered all the characters, naked-eye and microscopic, of intense fatty degeneration. The mesenteric glands were much enlarged, without any corresponding alteration in the mucous membrane of the intestine. The spleen was natural in size, but the kidneys were greatly enlarged by congestion and fatty degeneration. The heart also presented fatty degeneration. The condition of the liver, to which, perhaps, too much weight is given by Dr. Landrieux as the cause of the rapid mortality, is ascribed to the habitual food of the people. The occurrence, however, teaches very strongly the lesson of the importance of the vaccination of such natives of uncivilised countries, brought to Europe for show, immediately on their arrival. The public authorities ought invariably to take means to ensure effective vaccination.

OCCLUSION OF THE CORONARY ARTERIES.

AN instructive case has been recorded by Dr. Karl Dehio of Oldenburg. A man, thirty-one years of age, had suffered from attacks of sudden cardiac distress, accompanied by a sensation of painful pressure in the region of the heart, and a feeling of great anxiety. These attacks ultimately recurred daily. At last a very severe seizure occurred, characterised by pallor of the skin, feeble impulse of the heart, indistinctness of the sounds, and apparently failure of the left ventricle, while the right ventricle continued to contract forcibly. There was also acute œdema of the lungs, the progress of which could be watched during the attack, in which he died. It was found that "sclerosis" of the wall of the aorta had led to occlusion of the entrance to the left coronary artery, and had narrowed that of the right. There was fatty degeneration of the walls of the heart. The previous attacks were ascribed to the gradual narrowing of the vessels, which rendered the blood-supply to the heart insufficient to enable it to respond to the call for any extraordinary exertion.

It is of interest, in connexion with this case, to note some experiments on the effect of sudden occlusion of the coronary arteries which have been communicated by MM. G. Sée, Bochefontaine, and Roussy to the Académie des Sciences. The first to observe the effects of artificial closure of the coronary arteries was Chirac. In 1842 his experiments were repeated by Mr. Erichsen, who found that, in the dog, ligature of these arteries causes progressive retardation of the pulsations of the heart, followed by its arrest in from three to twenty-one minutes. He found that the contractions cease in the following order when the left artery is ligatured: first in the left ventricle; then in the right auricle; then in the left auricle; and, lastly, in the right ventricle. Schiff has maintained that the ligature of one coronary artery causes *immediate* paralysis of the cardiac region which it supplies, while the neighbouring parts preserve their usual rhythm. The experiments of the French investigators were made upon dogs under the influence of curara, morphia, and chloral, of the two latter combined, or of daturine and curara, artificial respiration being kept up. The coronary arteries were suddenly tied at their origin, while the heart was still beating vigorously. At the end of a period of one or two minutes, the rhythmic ventricular contractions, a little retarded, ceased suddenly, and were replaced by a disordered, tremulous movement, more or less violent, of the muscular fasciculi of the ventricles, analogous to that which has been observed to succeed the faradisation of the heart. It was most intense in the right ventricle. Soon the two ventricles became swollen, the auricles continued to supply them with blood, and the arterial pulse disappeared. In order to produce this effect it is not necessary to tie both the arteries at their origin. In one animal the posterior coronary artery was tied, and then two principal trunks of the anterior artery—the auricular and ventricular trunks—leaving free the branch which passes in the interventricular septum. The ventricular contractions became weakened in the same time, and then suddenly ceased, being replaced by disordered contractions, while the auricles, after a moment's pause, resumed their rhythmical pulsations, which gradually became weaker, and ceased. In another experiment the ventricular branches of the right and left coronary arteries alone were tied. The same results followed, and were also produced when the whole of the anterior coronary artery, or its two principal trunks, were closed. In one experiment similar phenomena were produced in six minutes by the closure of the posterior coronary artery alone. In another, the ligature of this vessel for five minutes produced no effect whatever. The anterior artery was then tied, and the disordered action of the heart immediately commenced. The division of the vago-sympathetic trunks in the neck did not modify these phenomena, and they were unaffected by strong faradisation of the peripheral extremity of the superior cervical ganglion.

The conclusion drawn from these facts is that the arrest of the circulation in the heart, by obliteration of the coronary arteries, modifies the contractility of the muscular fibres of the heart, so that they become incapable of contracting in their normal rhythmical manner. It may be objected that the condition of the ventricles is due to the excitation of the peri-vascular filaments, which, irritating the intra-cardiac ganglia, derange the normal action of the fibres. In order to ascertain the force of this objection, water charged with lycopodium spores was injected into the aorta by a branch of the anterior coronary artery. The systolic flow carried the lycopodium spores to all parts of the heart. In a minute and a half or two minutes the ventricles became pale, and immediately the tremulous movement, characteristic of the occlusion of the coronary arteries, set in, and presented the same characters as when produced by their ligature. The phenomena observed were thus simply the effect of the arrest of the blood-supply.

THE SHEFFIELD POISONING CASE.

THE facts of this remarkable case are briefly as follows:—Mr. Booth, his wife, an invalid son, and a daughter, resided at Gell-street, Sheffield, their servants being Parker, a housemaid, and Horton, a cook. In addition there resided with Mr. Booth's family an elderly lady named Roberts. On Sept. 1st, 1890, Annie Wilmot, a nurse, was engaged to look after the invalid son. This son died suddenly in convulsions on Oct. 8th. Notwithstanding the death of her patient, Wilmot, who had ingratiated herself with the family, was asked to remain. On Oct. 16th, Miss Booth died suddenly in convulsions. On Oct. 16th also, Mrs. Booth, who was much depressed by her double bereavement, began to suffer from cramp and twitching of the left leg. On the 17th the twitching had extended to the face and fingers. On the 18th these symptoms (which suggested the possibility of strychnia poisoning to Mr. Pye-Smith and Mr. Thorpe, the two medical men who were called in) continued. On the evening of the 18th Mrs. Booth was better. On Oct. 21st, Mrs. Booth's symptoms were those of opium-poisoning, and she remained unconscious for some time; she vomited, and the vomited matter on analysis by Mr. Bell and Dr. Tidy was found to contain morphia. Mrs. Booth ultimately recovered. Wilmot was charged at the Leeds Assizes, before Mr. Justice Manisty, with attempting to murder Mrs. Booth by administering poison to her, and at the trial the following facts were elicited:—1. That Wilmot had been seen at 10.15 on Sunday, Oct. 17th, to come out of the surgery with a bottle of white fluid in her hand, which she was measuring carefully into a medicine-glass. This was done openly; the bottle was left upon the kitchen-table, and what the bottle contained was never proved. 2. On Oct. 19th Wilmot sent the housemaid to the chemist's to get a bottle (belonging to a small portable medicine-case) filled with tincture of opium. The bottle and case have since disappeared. 3. On Oct. 21st Wilmot sent the housemaid to the chemist's for some morphia. 4. Before the magistrates she had denied sending the housemaid either for opium or morphia. 5. She told the housemaid on the 17th that Mrs. Booth desired her to go for the tincture of opium, which was contrary to the fact. 6. On the 19th Wilmot gave Mrs. Booth some hock, which was "nasty and repulsive," and caused Mrs. Booth to refuse to take any more, and to ask Wilmot "what she had put in it?" 7. On the 20th Wilmot gave Mrs. Booth some whisky-and-water, which looked muddy, and which tasted nasty.

There was no formal defence, but in the cross-examination of the witnesses for the prosecution it was proved:—1. That Wilmot had made no secret of her sending for narcotics, &c.

2. That other persons besides Wilmot had administered food and medicine to the deceased. 3. That the sending of the maid Parker to the chemist's was not an extraordinary occurrence in Mr. Booth's establishment. 4. That no poison was ever detected in the dregs of any article of food or drink given to Mrs. Booth. 5. That no adequate motive had been discovered for the crime. 6. That Wilmot had always been kind to Mrs. Booth, and seemed really distressed at her dangerous condition. 7. That the prisoner had always borne a good character. 8. That the cook who had prepared the food had since gone to Australia. The verdict was to the effect, "That Wilmot had administered morphia to Mrs. Booth, but with what intent there was no evidence to show."

THE PERIOD OF LATENT SENSATION.

A SERIES of investigations by Vintschgau and Hönigschmied on the interval between the application of a sapid substance to the tongue and the resulting sensation of taste led to the conclusion that the power of discrimination in different parts of the body had a considerable influence on the interval which elapses before a sensation is perceived. Vintschgau has examined the facts bearing on this relation afresh, and has compared his results with those obtained by previous investigators—Helmholtz, Hall, v. Kries, &c. His investigations were chiefly made upon the tongue, which he finds particularly adapted for the experiments. The tongue was touched with a point, while the person examined broke an electrical current with his left hand as soon as he perceived the sensation. The average of the whole series of observations on the first individual tested was for the middle of the tongue ·1908 sec., for the tip of the tongue ·1607 sec., the difference between the two parts being ·0301 sec. On exclusion of some doubtful observations, the average was for the middle of the tongue ·1877 sec., for the tip ·1522 sec., giving a difference of ·0355 sec. Observations on a second individual showed that the period is longer for the root of the tongue than for the middle or tip. Similar results were obtained on a third and fourth person. Observations made by Vintschgau on himself gave no difference between the middle and the tip.

Further observations were made on the palmar skin of the first and third phalanges of the middle finger, on the dorsal side of the first phalanx, and over the head of the metacarpal bone of the middle finger, in three persons. In the first individual tested it was found that the interval, excluding some doubtful observations, was on the palmar aspect of the third phalanx ·1629 sec., on that of the first phalanx ·1597 sec., on the dorsal surface of the first phalanx ·1822 sec., and on the knuckle ·1977 sec. The touch on the dorsal side was thus always noted later than that on the palmar aspect, which corresponds with the degree of tactile discrimination. In a second individual there was no notable difference between the interval for the dorsal and palmar aspects. But in both persons the interval for the palmar aspect of the first phalanx was shorter than that for the palmar aspect of the third phalanx, a fact for which no explanation is given. On himself Vintschgau only examined the intervals on the palmar aspect of the third phalanx and the knuckle, and found the period longer for the former than for the latter. It is possible that the cause of these differences may be in the sensorium, but it seems more probable that it is to be found in the different development of the power of localisation. At any rate, the observations corroborate the fact that the latent period of sensation varies in different parts, and that it varies in the same parts in different individuals in a manner not altogether easy to explain.

Another fact demonstrated by Vintschgau is that an electrical stimulation is sooner perceived on the tip of the tongue than on the tip of the finger. This might be expected from the longer course of nerve which the sensation has to travel; but it may be in part also due to the greater power of tactile discrimination possessed by the tip of the tongue, in accordance with the facts ascertained regarding touch.

THE PEABODY FUND AND CLASS MORTALITY.

THE trustees of the Peabody Donation Fund have just issued their Sixteenth Annual Report, which, although as usual exceedingly terse, is full of interest from a social, sanitary, and financial point of view. It is, at any rate, useful to be reminded once a year of the almost silent but steadily progressive influence for good of this noble gift to the poor of London. Glancing at the capital account, we find that Mr. Peabody's successive gifts, which amounted to half a million sterling, have, with the addition of accruing rent and interest, already increased by 50 per cent., and become three-quarters of a million, which is all employed in furthering that incalculable boon to the poor of London—the improvement of their dwellings. At the close of last year the trustees had housed 9899 persons in their improved dwellings, and had purchased no less than six other plots of ground from the Metropolitan Board of Works, on some of which the new buildings are approaching completion. Before the close of the present year the trustees hope to complete additional accommodation for 760 families, or upwards of 3500 individuals, which will raise the aggregate population of the Peabody Buildings to 13,500 persons. It is often asserted that these improved dwellings are not used by the class for which they were intended, but it is interesting to learn from the report before us that the average weekly earnings of the heads of families in residence at the end of last year were rather less than 23*s.* 6*d.*, and that the average rent of each tenement was 4*s.* 4*d.* It is evident that the population of the Peabody buildings is distinctly a working and weekly waged class population. From this point of view the statement that the death-rate during last year in the Peabody buildings was equal to 19·7 per 1000 of their population has especial interest. But for the fact that the population belongs exclusively to the poorer of the working classes, a little surprise might be felt that the death-rate in these improved dwellings was only 2·5 per 1000 below the average rate in the whole of London, as this apparent deficiency in the death-rate would disappear if the due proportion of deaths in public institutions (workhouses, hospitals, and lunatic asylums) were added. As a death-rate, however, among a class of population in which the average earnings of the heads of families is but 23*s.* 6*d.*, this result is one which raises great expectations of the future effect of the Peabody Fund, together with the effect of Associations for improving the dwellings of the poor upon the sanitary condition of London.

GLASGOW LOCK HOSPITAL.

IN the seventy-fifth annual report of this institution it is stated that of 414 patients treated during 1880, 390 were dismissed cured. The average cost of each patient dismissed was 34*s.* 6*d.* Some of the other statistical facts presented in this report are of considerable interest. Thus it is shown that the great majority of the patients were young persons. Some of them were mere children. In such cases the police authorities were, whenever possible, communicated with. The average age of those dismissed cured did not exceed twenty-one years and a half; of these patients 235 were inmates for the first time, 93 for the second, 43 for the third, 13 for the fourth, 3 for the fifth, 2 for the sixth, and 1 for the seventh. More than 10 per cent. of the patients during the year were restored to their parents and relatives,

or, at their own desire, sent to a reformatory institution. The medical officer's report also stated that the disease for the cure of which the hospital was opened had become milder in its type, altogether less fatal and more amenable to treatment than formerly, while at the same time its prevalence had become greatly diminished, and its sad effects, formerly to be seen upon the young and innocent, even among the better class of the people, were not now so often encountered.

THE TREATMENT OF MALIGNANT PUSTULE.

M. VERNEUIL, in an important communication to the Académie de Médecine on this subject, reminded his hearers that the malignant pustule consists of three zones or regions: first, the slough or gangrenous zone with its characteristic vesicles; secondly, an indurated zone presenting on its surface other vesicles; and, lastly, the zone of œdema. Until recently surgeons have concentrated their attention on the central or gangrenous zone, have applied almost no treatment to the indurated zone, and always none to the zone of œdema beyond poulticing and leeching. According to M. Verneuil it is important to apply to each zone special and energetic treatment. These are—first, to destroy or excise the gangrenous part; secondly, to incise and cauterise deeply the zone of induration; thirdly, to disinfect, by antiseptic hypodermic injections, the zone of œdema; lastly, to employ general antiseptic treatment, such as the internal administration of iodine or some other efficient internal antiseptic. The experiments of Davaine have shown that iodine, even in small doses, has an efficient neutralising action on the virus of anthrax, and it is possible, according to M. Verneuil, to introduce into the circulation a sufficient quantity of iodine to produce this effect. The hypodermic injections into the œdematous zone should also consist of iodine, ten drops of a one-half per cent. solution. The first case thus treated was one of malignant pustule on the arm, in which the actual cautery had failed, and amputation was contemplated; the treatment was perfectly successful. In another case the pustule was situated on the eyelid, inoculation having been effected by inadvertently scratching a pimple there. The eyelid was much swollen, and presented the characteristic vesicles and bullæ, and there was considerable œdema of the whole of that half of the head. The temperature was 103°; the patient was delirious, sleepy, and vomited continually. The pustule was destroyed by means of the thermo-cautery. In the zone of induration a series of punctiform cauterisations were made with the same instrument, to a depth of one-third of an inch, and then the solution of iodine was injected in the œdematous part at intervals of five centimetres. The temperature rapidly fell. The delirium, somnolence, and vomiting ceased as if by magic, and on the third day the patient was out of danger. In the discussion which followed M. Léon Labbé agreed with M. Verneuil as to the necessity of cauterisation in the zone of induration, and employed it even in the œdematous region. He was inclined to attribute more importance to this measure, employed in an energetic and even, as it might seem, barbarous degree, than to the injections of iodine. M. Gosselin urged the importance, before applying the treatment to every pustule which had a malignant aspect, of ascertaining if it were really anthrax, by microscopical examination of the serum in the vesicles and of the blood. M. Verneuil, speaking from the standpoint of practical surgery, maintained that better indications could be drawn from the clinical aspect of the affection than from the presence or absence of bacteria. He had seen cases in which bacteria were found in the vesicles and in the blood, although the symptoms were benign, and others in which, in spite of the absence of bacteria, the augmenting gravity of the affection necessitated the use of the most energetic remedies.

THE ARMY ESTIMATES.

THE estimated expenditure on account of the medical establishment and services for the year from April 1st, 1881, to March 31st, 1882, amounts to £300,480, being £7960 under the estimate for the current year. The reduction is due to several causes: chiefly, the retirement of a large number of officers in receipt of the maximum rate of pay, a decrease in the number of civil practitioners employed in consequence of the Army Medical Department having nearly reached its normal establishment, a decrease in the number of surgeons on probation at Netley, for the same reason, and to the Irish militia not being called out this year for training. In addition to the above sum, however, there is a charge of £5750 for the staff employed at the Army Medical Board, and one of £6434 for the medical school at Netley, while £1875 should be deducted as the charge for the unnecessary military staff at Netley, which we regret to see still borne on the estimates. The aggregate expense, therefore, of the Army Medical Service may be stated in round numbers at £310,800. As regards the *personnel*, the numbers of the medical officers employed are the same as last year, with the exception of an addition of three Acting Medical Officers employed at Brigade Depôts, and a reduction of one Deputy Surgeon-General at the Medical Board, where the sanitary and statistical branches have been combined under one head—a paltry saving of very doubtful expediency. In the estimates provision is made for 30 surgeons on probation at Netley, instead of 100 as last year—a very satisfactory proof that the present Warrant has enabled the authorities to bring up the number of medical officers to the authorised establishment.

The sum required for the pay of army medical officers on the Home Establishment is £176,018, with servants and mess allowances of £7180; and in the colonies, £51,705, with £2880. Under the head of "pay of civilian medical practitioners and medical bills," £11,000 are required for home, and £125 for the colonies, the former being a reduction of nearly £6000 and the latter of £750 compared with last year. For the pay of nurses in female hospitals, miscellaneous labour, &c., £2720 are taken, and for departmental and extra duty pay of Army Hospital Corps £20,646. The amount for these two items was not stated separately in last year's estimates, but there is an increase on the aggregate of £1277.

We have on several occasions called attention to the injury done to such an establishment as the great invaliding hospital of the army by attaching to it a discharge depôt for time-expired men. We sincerely trust that Mr. Childers will repeat his visit to Netley, and take the opportunity of making inquiries into the injurious influences of this arrangement. We feel confident that the result of such a course would be an immediate change of system, reserving Netley exclusively for invalids and sick, and forwarding all time-expired men to their Brigade Depôts, to be discharged to their homes or place of enlistment when the necessary formalities of completing their documents and settling all claims for pay or pension have been completed.

HOSPITAL SUNDAY IN MANCHESTER.

THE *Manchester Guardian* publishes a very sensible letter from the Rector of Christchurch, Salford, on the system of giving "recommends" to the clergy in return for collections. Until the whole system of giving letters is abolished in favour of admission on a strict system of merit and urgency, it is unreasonable not to give clergymen a *quid pro quo*. They are naturally brought into contact, sometimes very painfully, with sickness. Their interest in Hospital Sunday is greatly increased by acquiring some means of helping the poor to admission into hospitals. If the rules permit the churches or the committee to require too much, the proper

remedy is to alter the rules, but by no means to allow any defect of this kind to interfere with a hearty support of the approaching collection.

EPIDEMIOLOGICAL SOCIETY.

AT the meeting of the Epidemiological Society, held at University College on February 2nd, the President, Sir Joseph Fayrer, in the chair, it was resolved to utilise the constitution of the Society for the purpose of investigating the following points, and special committees were appointed for this object:—1. The evidence which the present state of medical knowledge supplies as to the conditions affecting the protection against Small-pox afforded by Vaccination. The committee to consist of Dr. Robert Cory, Dr. John McCombie, and Mr. Shirley Murphy. 2. The circumstances under which Enteric Fever originates, and the means by which it is disseminated. Committee, Dr. Alexander Collie, Dr. G. C. Henderson, and Dr. E. J. Russell. 3. The circumstances under which Diphtheria originates, and the means by which it is disseminated. Committee, Dr. J. B. Longstaff, Mr. A. H. Smee, and Dr. William Squire.

THE death of Mr. F. J. Short, of St. Bartholomew's, under very sad circumstances, has caused an unusual amount of sorrow and sympathy, as especially evidenced on the day of his burial. Several of his fellow students attended, and letters from others were received, expressing in very strong terms their grief at their loss, and appreciation of his character. One says, "He was my ideal of a perfect Christian gentleman, and if ever man was ready to meet his end he was." He seems to have been universally respected, and many living on the "upper Thames" will remember the tall, quiet, gentlemanly man, who for months together was sketching there. He entered the medical profession a few years ago; had gone to assist his friend Mr. Taylor, of Bocking, on the 2nd inst., and died of malignant small-pox on the 10th, contracted while acting as a temporary assistant in London.

THE College of Physicians in Ireland, as trustees of Sir Patrick Dun's Hospital, have achieved a success in the matter of recovery of rent which has served to put a different complexion on the political affairs of Waterford. The lawful seizure of a tenant's cattle for arrears, and the effective sale of the stock through the agency of the Property Defence Association, and under the protection of a large force of constabulary, seem to have so cowed the adherents and dupes of the Land Leaguers that a large number of tenants on the estate paid up outstanding accounts at once, and the remainder have promised to pay, alleging fear, not destitution, as the cause of delay.

OUR correspondent from India writes: "What a sad business there was at Guy's about the nursing! We went through exactly the same sort of thing out here in Madras. At first the nurses *and priests* had it all their own way; but ultimately, thanks to the shrewd common sense of the Duke of Buckingham and his daughter, Lady Mary Grenville, they were found out, and had to pack up and go."

DR. JOHN WATT REID, Director-General of the Navy Medical Department, has been appointed Honorary Physician to the Queen, in the vacancy created by the decease of Dr. Davidson.

AN effort is being made, it appears, to consolidate the Medical Colleges of Cincinnati into one, to form the medical part of the State University. A similar attempt, made some time back, proved abortive.

THE Medical Council did wisely in appointing, in the place of the much lamented Dr. Andrew Wood, a London Chairman of the Business Committee; and of the London members of the Council, none could have been found more fit by habit and varied experience for the duties of the post than Dr. Pitman.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL INSPECTORS OF THE LOCAL GOVERNMENT BOARD.

Cemeteries.—Under the Public Health (Interments) Act, 1879, sanitary authorities are empowered to establish and maintain cemeteries, and, with the sanction of the Local Government Board, to borrow money for defraying the cost. Under these circumstances, the Board has thought it desirable to issue a memorandum on the sanitary requirements of cemeteries, setting forth those points which presumably will influence the Board in its judgment on the suitability of the site of a proposed cemetery. This memorandum has been prepared by Dr. H. Franklin Parsons, and embodies the principles laid down by various English and foreign authorities as requisite to be observed in the establishment of a cemetery to prevent it from becoming a source of nuisance and danger to the living. The memorandum presents an admirably clear view of cemeteries in their sanitary relations. Dr. Parsons deals successively with the questions of soil, situation, particularly in relation to water-supply and sufficiency of space. He does not confine himself to a mere recapitulation of already accepted principles. He makes a suggestion which we do not remember to have met with before, and which commends itself equally to the sanitary worker and to the individual who regards a cemetery from the point of view of sentiment. "In view of the evils which in former times have undoubtedly arisen from the practice of intramural sepulture, and also because the erection of houses near a cemetery interferes with the free play of air around and over it, it is desirable that the site of the cemetery should be in a neighbourhood in which building is not likely to take place, and also that so far as practicable a belt of ground should be reserved between the graves and the nearest land on which a house may be built, in order to obviate to some extent the risk of contamination of ground-air and subsoil water with decomposing matters. This is especially necessary where houses are constructed with cellars. It is, therefore, highly desirable that interments should not be made up to the extreme edge of the cemetery, and it would be possible without great waste of space to reserve in all cases a strip of ground free from interments, fifteen to thirty feet in width, around the whole cemetery on the interior of the boundary fence. This strip would afford room, on the inside, for a gravel or asphalte walk to give access to all parts of the cemetery, and on the outside next the fence to a belt of shrubs or trees, the rootlets of which penetrating the soil would arrest and assimilate any decomposing matters percolating to the exterior of the cemetery."

Faversham (Urban).—This is a report of an inspection made by Mr. W. H. Power, in 1880, to ascertain what had been done in this district by the sanitary authority since a previous inspection in 1875. The first inspection disclosed many shortcomings, and the second inspection showed that while some things had been done by the sanitary authority in the intervals of the inspections, other things had been left undone. But what is to be expected from a sanitary authority which does not, as we learn from Mr. Power, know, as it ought to know, the sanitary circumstances of its own district (possibly does not wish to know)? We must be thankful, then, for the smallest indications of improvement, hoping that such will serve to make more and more prominent to the ratepayers the shortcomings of the administration.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Halifax.—The medical officer of health for Halifax (Mr. Daniel Ainley) has presented to the Sanitary Committee of the Corporation a report on the recent severe localised outbreak of scarlet fever in his district. The report is not dated, but it appeared in the *Halifax Guardian* of Jan. 29th, and at the time of its presentation, and during the month, 319 cases of the disease, of which thirty-three were fatal, had occurred within a limited locality of the borough. Five deaths only from scarlet fever, it is stated, had been registered in the borough in the month of December. The great outbreak of the malady appears to have happened in the course of the first three days of January, and as "nearly every one" of the cases obtained milk from one milk-dealer, suspicion was early excited as to this article of food forming the medium for the dissemination of infection, a suspicion apparently strengthened by the failure to discover any other probable common source of infection. This suspicion was seemingly confirmed subsequently by finding that the family of a man in charge of and whose duty it was to milk certain of the cows from which the milk-dealer obtained a portion of his supply had scarlet fever in his family, and that he was in such close relation with the sick as, in Mr. Ainley's opinion, to make it certain he had been the medium through which the milk had become infected. Moreover, the manifestation of the infection of scarlet fever in this attendant's family had preceded, it is inferred, by at least three days the outburst in the borough. Mr. Ainley thinks he establishes a reasonable probability that the infection of the disease was, as he believes, distributed through the infected milk. But the details he gives as to the relations of the several cases of scarlet fever to the implicated milk, and the times of occurrence of the cases of scarlet fever in the cow-attendant's family—details upon which the validity of the whole argument depends—are curiously wanting in precision. Indeed, Dr. Britton, the medical officer of health for the Halifax (Rural) Combination of Sanitary Districts, within whose district the cow-attendant and his family live, and whose duty it has been to inquire into the circumstances of the prevalence of scarlet fever in the family, has already published data in respect to them, which appear to be irreconcilable with Mr. Ainley's conclusion. This outbreak has caused so much local anxiety that a numerous and influentially signed petition has been presented to the Local Government Board, asking for a special medical inquiry. The Board has assented to the petition, and Dr. Ballard has been instructed to make the desired inquiry.

Mexborough (*Urban*).—Our attention has been directed to a sentence in our notice of the Medical Officer of Health's Annual Report for 1880, for this district, which appeared in THE LANCET of the 12th inst., and which contains an unfortunate misprint. The words "privies constructed *without* drains" should read "privies constructed *with* drains." We entirely agree with the official report of the Local Government Board on this subject, in condemning the use of drains in privies.

THE TOTTENHAM LOCAL BOARD.

For some little time back the Tottenham Local Board has shown an excellent example to the Local Boards in the suburbs of London by the steady care with which it has carried out its duties, and the excellent effect their due performance has had upon the sanitary condition and general health of the district. We greatly regret to find that indications are being manifested of a tendency to fall off from the standard that this Local Board has maintained. At a recent meeting of the Board the medical officer's annual report was presented. The report would seem to have given a faithful account of the sanitary state of the district and its general health condition, and after its reading, as customary, we believe, a motion was made and seconded that 2000 copies of the report should be printed and put in circulation. Whereupon an amendment was proposed, on the ground that there were statements in it "likely to create a very great deal of prejudice against the board's officers," that the report should be "amended and revised," that is to say from what followed, purged of everything that it was most desirable that the ratepayers should know, before being printed. This amendment was carried by a majority of one, and the Local Board will therefore "amend" the report so as to make it palatable to the ratepayers and themselves. Tottenham used to have a Citizens' Sanitary Association which once did excellent service in a somewhat similar contingency. Let us hope that it still exists, for it would be deplorable if the Local Board were to be allowed to lapse into that neglectful state of sanitary administration which, not many years ago, excited so much prejudice amongst outsiders as to the health-condition of the district.

NOXIOUS VAPOURS.

The Report of the proceedings for 1880 of the Manchester Association for Controlling the Escape of Noxious Vapours and Fluids from Manufactories, although of the briefest, contains several interesting particulars. The Association is so disappointed with the prospects of general legislation on this subject, that they raise the question whether Manchester and Salford should not endeavour to obtain local legislation, by private Act, if the probabilities of general legislation do not quickly improve. With regard to the mitigation of the smoke nuisance in November last they suggested to the Nuisance Committee of the Manchester Corporation that the prohibition of dense smoke should be made *absolute*, instead of so many minutes in the hour being allowed. They found, however, that this suggestion had been anticipated by the Committee and was already acted upon, but the Committee had found it desirable to proceed cautiously in carrying it out. Salford does not appear to have had the same lively sense of dealing with the smoke nuisance as Manchester. Reference is made to the movement started in the metropolis with the object of trying to abate London fogs; and it seems, from a communication from Chicago addressed to the Association, that even the new-world city is occupied with the question of abating smoke nuisance.

FULHAM SMALL-POX HOSPITAL.

The public meeting to which we referred in our last week's impression as about to take place at the Subscription Rooms, Tattersall's, with respect to the small-pox hospital at Fulham, was held as announced, Mr. Lammin, the Fulham representative of the Metropolitan Board of Works in the chair. The course pursued was that which we had foreshadowed. A deputation was appointed to wait upon the Metropolitan Asylums Board and the Local Government Board, and urge that the number of small-pox patients to be received into the hospital should not be augmented, as was proposed by the Metropolitan Asylums Board. A committee was also formed to further the objects of the meeting. A letter from Mr. Francis Godrich, describing the influence which, in his opinion, the hospital exercises upon its neighbourhood, was read to the meeting. A public meeting has also been held at Chelsea on the same subject, Mr. J. B. Firth, M.P., presiding, and a plan of procedure was decided upon similar to that which had been determined by the previous meeting at Tattersall's. In the course of the meeting Mr. Firth remarked that blame was being cast upon the Asylums Board, but that the local authorities must take the blame to themselves for not having done their duty.

An outbreak of scarlet fever in the Toxteth Park district, adjoining Liverpool, is attributed to the dissemination of the infection of the disease through a milk supply. It is further reported that although it was known that scarlet fever existed on the dairy premises, and cases were occurring among the customers of the dairy, no proper precautions were taken to prevent mischief from the milk distributed, out of consideration for the dairyman's business, as if it were any part of his business to distribute scarlet fever! A local journal regards, however, this further report "as *almost* incredible."

Dr. Collum claims from the Lower Thames Valley Main Sewerage Board *thirty* guineas for services rendered to it. The Board have replied to the claim by voting a sum of *five* guineas, which Dr. Collum has properly refused to receive. The Board, however, adheres to its decision; having lavished thousands of pounds over its legal expenses, it seeks to establish a reputation for economy by practically repudiating its medical expenses.

It would appear that the Preston Board of Guardians and the Preston Corporation are squabbling about their respective duties in dealing with cases of small-pox, the population of the town meanwhile (whose protection from the disease they are mistakenly presumed to have in view) being left a prey to the contagion.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

The registered mortality showed a further marked decline last week. In twenty of the largest English towns, estimated to contain in the middle of this year a population exceeding seven and a half millions of persons, 5569 births and 3347 deaths were registered last week. The births exceeded by 383, and the deaths by only 90, the average weekly numbers during last year. The deaths showed a further decline of not less than 745 from the high numbers returned in recent weeks. The annual death-rate in these twenty towns, which in the three previous weeks had been equal to 28·8, 31·0, and 28·0, further fell last week to 22·9. During the six weeks of the current quarter, ending on Saturday last, the death-rate in these twenty towns averaged only 25·9 per 1000, against 27·6 and 28·5 in the corresponding periods of 1879 and 1880.

The deaths in the twenty towns referred to the principal zymotic diseases, which had been 390, 373, and 366 in the three previous weeks, further declined last week to 316; of these, 71 resulted from scarlet fever, 71 from whooping-cough, 52 from small-pox, and 37 from fever, principally enteric. The annual death-rate from these zymotic diseases averaged only 2·2 per 1000 in the twenty towns, and ranged from 0·9 both in Oldham and Sunderland, to 3·3 and 4·4 in Liverpool and Nottingham. Scarlet fever showed the largest proportional fatality in Wolverhampton and Nottingham; while whooping-cough was most fatal in Leeds and Nottingham. Of the 23 deaths referred to diphtheria in the twenty towns, 17 occurred in London, 2 in Liverpool, and 2 in Portsmouth. The death-rate from fever (principally enteric) was highest in Newcastle-upon-Tyne, Nottingham, and Leicester. Small-pox caused 54 more deaths in London and its outer ring of suburban districts, while no fatal case of this disease was registered in any of the nineteen large provincial towns. The number of small-pox patients under treatment in the Metropolitan Asylum Hospitals, which had steadily increased from 77 to 617 in the fifteen preceding weeks, further rose to 683 on Saturday last. The number of new cases of small-pox admitted to these hospitals, which had been 114 and 234 in the two previous weeks, were 176 last week. The Highgate Small-pox Hospital contained 46 patients on Saturday last, against 30 and 37 at the end of the two preceding weeks; 16 new cases were admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which had been 617, 702, and 606 in the three preceding weeks, fell last week to 408, and were no less than 127 below the corrected average number in the corresponding week of the last ten years; 269 resulted from bronchitis, and 91 from pneumonia. The annual death-rate from lung diseases (excluding phthisis) was equal to 5·4 per 1000 in London, while the rate from the same diseases in Liverpool was 8·7.

In the twenty towns last week the causes of 81, or 2·4 per cent., of the deaths were not certified, either by a registered medical practitioner or by a coroner. The proportion of uncertified deaths did not exceed 1·0 per cent. in London, while it averaged 3·7 per cent. in the nineteen provincial towns. No uncertified deaths were registered last week in Brighton or Newcastle-upon-Tyne, while their proportion was largest in Wolverhampton, Oldham, and Hull.

HEALTH OF SCOTCH TOWNS.

In eight of the largest Scotch towns, having an estimated population of rather more than a million and a quarter persons, the annual death-rate averaged 24·3 per 1000 last week, against 34·7 and 28·9 in the two preceding weeks; this rate was 1·4 above the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 9·7 and 18·7 in Perth and Edinburgh, to 27·8 and 37·1 in Glasgow and Paisley. The deaths referred to the principal zymotic diseases in the eight towns, which had been 125 and 94 in the two previous weeks, further declined to 89 last week, and were equal to an annual rate of 3·5 per 1000, which was 1·2 above the average rate from the same diseases in the twenty English towns. The zymotic death-rate last week in the eight Scotch towns ranged from 0·0 and 1·8 in Perth and Edinburgh, to 4·3 in Glasgow and Leith, and 6·4 in Paisley. The fatal cases of scarlet fever in the eight towns, which had been 27 and 14 in the two preceding weeks, were 16 last week, of which 7 occurred in Glasgow, 3 in Edinburgh, 3 in Leith, and 2 in Greenock. The 28 deaths from whooping-cough showed a further decline of 6 from the numbers in the two previous weeks, and included 11 in Glasgow, 6 in Dundee, 4 in Paisley, and 3 in Edinburgh. The 16 fatal cases of diphtheria showed an increase, no less than 12 being recorded in Glasgow. The 8 deaths referred to "fever" were fewer than those in recent weeks. All the 7 deaths from measles, and 9 of the 14 from diarrhœa, were returned in Glasgow. The deaths referred to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), in the eight Scotch towns, further declined last week to 200, from 348 and 261 in the two previous weeks. These 200 deaths from lung diseases were equal to an annual rate of 7·9 per 1000 of the population in the eight Scotch towns; the death-rate from the same diseases in London did not exceed 5·1. The greatest fatality of lung diseases in the Scotch towns occurred again last week in Glasgow and Paisley.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, although still markedly excessive, showed a further decline last week. The annual death-rate from all causes in the city, which had been equal to 45·7, 47·4, and 46·5 in the three preceding weeks, declined to 41·8 last week. During the first six weeks of the current quarter the death-rate in the city averaged no less than 41·4 per 1000, against 25·9 in London, and 23·1 in Edinburgh. The 267 deaths in Dublin last week were 30 fewer than the number in the previous week, and included 22, or little more than 10 per cent., which were referred to the principal zymotic diseases, against 37, 34, and 21 in the three preceding weeks. These 22 zymotic deaths in Dublin last week included 7 which were referred to fever (typhus, enteric or typhoid, and simple continued), 5 to scarlet fever, 4 to measles, 3 to whooping-cough, 2 to diarrhœa, 1 to diphtheria, and not 1 to small-pox. The annual death-rate from these zymotic diseases was equal to 3·4 per 1000 in Dublin last week, while it was only 2·3 in London, and 1·8 in Edinburgh. The deaths referred to fever, which had been 17 and 15 in the two previous weeks, declined to 7 last week, but were equal to an annual death-rate from fever which was more than four times as high as the average rate from the same cause last week in the twenty large English towns. The fatality of whooping-cough in Dublin showed a further decline last week, while the fatal cases both of measles and scarlet fever were more numerous. The deaths of elderly persons showed a further considerable decline last week, while those of infants had further increased.

HEALTH MATTERS GENERALLY AT HOME AND ABROAD.

THE PUBLIC HEALTH ASPECTS OF THE IRISH CRISIS 1879–80.

The Dublin Mansion House Relief Committee have published a general report of their proceedings during the Irish crisis (as it is now the fashion to term the deplorable period of destitution through which the population of the sister island passed) in 1879–80. The story of the circumstances which led to that destitution, of the efforts made to relieve it, and of the part the Dublin Mansion House Committee performed in promoting that relief, is told eloquently and well. Altogether the report forms an invaluable contribution to the contemporary history of an eventful period, and it should have the careful reading of all English persons who would acquire a competent knowledge of the terrible crisis which Ireland has barely escaped from, and who would form a true judgment upon the matters which concern the future social condition of that island which are now impressed upon the public attention. The medical elements of the report, particularly the portions contributed by Dr. Sigerson and Dr. Kenny, were in the main commented on in the columns of THE LANCET at the time they were communicated to the Committee. From the information then before us we considered that the health aspects of the distress were of graver moment than appeared to be generally regarded by our

contemporaries. We must confess, after reading this report, that we rather underrated than overrated the consequences from the public health point of view of this great disaster. The Committee lament that English sympathy should have been so largely warped in its consideration of the terrible miseries which the Irish population has so recently undergone by the political questions relating to Ireland, which were forced upon their attention at the same time, and it is to be feared that similar reasons may deter many from seeking to inform themselves at the present time of the real nature and extent of that misery. But we trust that this will only be in a very limited degree the case, and we would commend to all who take a thorough interest in the well-being of their fellow-men a perusal of this report. It possesses a terrible enthralment, and the general reader will not rise from its perusal without an acuter sympathy for the distressed in the sister island; the medical readers without thankfulness to this committee, and cognate committees, by whose exertions we were saved—barely saved, it may be—but saved from a repetition of the horrible scenes of the famine of 1846–47.

THE MONSALL FEVER HOSPITAL, MANCHESTER.

The Monsall Fever Hospital, Manchester, is, in reality, a detached section of the Royal Infirmary of the city. The trustees of that institution are required, we believe, by the deed of their appointment, to maintain a certain number of beds for infectious diseases, and out of this portion of their responsibilities has grown the large infectious disease hospital at Monsall, in the outskirts of the city. But the trustees have not contented themselves with providing hospital accommodation for the cases of infectious disease sent in ordinary course to the General Infirmary, but have also become the purveyors of such accommodation for the sanitary authorities of Manchester and Salford, and numerous other sanitary authorities in the environs of the city and neighbouring town. The trustees, in taking this course, had in view the facilitating the isolation of cases of infectious disease in hospital under unusually favourable circumstances, to wit, the use of a hospital for sanitary purposes which was organised and administered by the body responsible for the organisation and administration of the Royal Infirmary. We regret to learn that the project has failed in one very important particular. The charges made to the several sanitary authorities who have decided to benefit by the Monsall Hospital have proved to be fixed at so low a rate as to leave the trustees of the Royal Infirmary considerably out of pocket for its administration. The subject is now under the serious consideration of the trustees, and it is to be hoped that a readjustment of charges may be possible, and the original project of the trustees in regard to Monsall carried out without detriment to the funds of the parent institution.

PREVENTABLE DISEASES.

Dr. Smart has been lecturing in Edinburgh before a highly appreciative audience on "Preventable Diseases and their Causes." The lecture was one of a series of "Health Lectures for the People," and was delivered in the Free Church Assembly Hall. Dr. Smart described a preventable disease as one which arose or spread in consequence of the wilful, careless, or ignorant violation of those laws the proper observance of which we know to be necessary to the preservation of health and to avert the spread of disease. He next gave statistical details showing the great loss of life and the vast amount of sickness caused by the principal zymotic diseases, and explained the theory of zymosis. He dwelt also upon the nature of infection and the means necessary for preventing the spread of infectious diseases, and expressed the opinion that local authorities should be entrusted with a discretionary power of compulsory removal. "This discretion," he added, "would never be abused." In illustration of the wide-reaching play of infection, he referred to cases of small-pox imported into Edinburgh from London. He referred also to the proposition to convert the buildings of the old Royal Infirmary, Edinburgh, into a hospital for infectious diseases. Indicating the wide use he would have made of infectious-disease hospitals, he stated that the late Sir James Simpson had expressed his determination to be treated in hospital in the event of his suffering from an infectious disease. The lecture occupied an hour and a half in delivery, and was frequently interrupted by the applause of the crowd which filled the hall.

THE SOCIETY OF ARTS "SANITARY" MEDALS.

The Society of Arts propose to give a series of silver medals for plans showing the best Sanitary Arrangements in houses built in the metropolis, such plans to be exhibited in the Society's Rooms, Adelphi, in June, 1881, and to be sent in on or before May 12th, 1881. We forbear referring to the proposition in greater detail until we obtain some explanation of the following extraordinary statements in the prospectus. The judges in the competition, it is said, will be guided in considering their award "by the suggestions of plans for main sewerage, drainage, and water-supply, made under the Public Health Act, 1875." We thought ourselves tolerably familiar with the Public Health Act, 1875, but we confess this puzzles us, and what follows in a foot-note puzzles us still more. A foot-note to the words quoted above reads—"The Public Health Act has been revised to 1878, and published by her Majesty's Stationery Office. Price, with plans, three shillings." That the revision of public Acts should be handed over by the Legislature to the Stationery Office and issued with plans, is indeed a startling bit of news. The Society of Arts is, however, responsible for it; and we would advise intending competitors to ascertain if the Society really knows what it is about before expending time and trouble on the competition.

THE PARKES MUSEUM LECTURES.

Mr. Rogers Field, M.I.C.S., has been lecturing at the Parkes Museum on house drainage. By voice, experiment, and drawings he endeavoured to bring his great knowledge on this subject within the reach of the most ordinary capacity, and strange, but most hopeful to say, he spoke as if he fully believed it to be within the limits of possibility that builders and their employers might with due patience, and in the fulness of time, be taught the principles of correct house-drainage. True, he told a quite fresh story of a builder who prided himself on laying socketed drain-pipes, by laying them loose in the sockets, discarding packings of cement or other material, not only as useless, but positively harmful. This surely must have been a near relative of the man, if not the man himself, who has tickled the economy of his employers by using simple "butt" pipes for house drains, placing them merely end to end, and adapting them to curves by the simple process of partial junctions. It may also be that ingenious builder who, improving upon engineers' notions, lays all his S-traps horizontally. With admirable clearness and distinctness Mr. Rogers Field set forth the principles of a perfect system of house-drainage, teaching, however, not only what should be done to secure one, but what should be avoided.

At the last meeting of the Public Health Committee of the Edinburgh Town Council, the medical officer stated that the epidemic of scarlet fever, which had been prevailing in the city, is now steadily decreasing. Several owners of houses which had been found to be in an insanitary condition were ordered to have the premises put in a proper state of repair or to shut them up. In view of the increase of the small-pox epidemic in London, instructions were given to have a ward prepared in the Canongate Hospital for the reception of such patients, in the event of an outbreak of the disease in Edinburgh. No cases of small-pox have yet been reported in the city.

A short time ago attention was directed to the circumstance that several deaths had taken place in Glasgow from typhus fever, caught while "waking" the body of a person who had died of the same disease. The medical officer of Govanhill reports a death from scarlet fever, the disease having been contracted under precisely similar circumstances. The clergy might very properly use their influence to put a stop to the absurd and dangerous practice of "waking."

THE SEAMEN'S HOSPITAL.—Lord Northbrook presided at the annual court which was held at Willis's Rooms on the 9th inst. The chief feature of interest was the presentation of an illuminated address to Mr. Burdett, the late secretary. During the past year, in addition to the ordinary routine work of the hospital, a dispensary has been opened in Wells-street, London Docks, for the benefit of sick sailors. Severe cases are at once sent from the dispensary to the hospital, and this plan has been found to work most satisfactorily.

THE SERVICES.

SIR FREDERICK ROBERTS AND HIS MEDICAL STAFF.

In congratulating Sir Frederick Roberts on his reception at the Guildhall on the 14th instant, we deem the occasion a fitting one for thanking him for the ungrudging manner in which he has at various times recognised the services of the medical officers attached to his column, and also for publicly drawing attention to the assiduous anxiety he displayed regarding the state of his sick and wounded, and the careful supervision he exercised over the sanitary arrangements both of camp and hospital. The result was to render the medical officers attached to his column devotedly loyal to their general, and we may point with pride to many gallant deeds performed by the medical staff of General Roberts's force. One of the most conspicuous acts of bravery was performed by Surgeon Duke, I.M.D., on the occasion of the explosion of the first magazine in the Bala Hissar on Oct. 16th, 1879, and whilst there was every expectation of the second magazine also becoming exploded, Surgeon Duke, on hearing that some Goorkhas were lying wounded within the fortress, climbed over the walls and succeeded in carrying them out. At the time Surgeon Duke was exposed to cartridges which were exploding in all directions. He was assisted in rescuing the Goorkhas by Surgeon Simmonds and Surgeon-Major Bourke, who afterwards came up. Surgeon Duke was also mentioned in despatches by Major-General Roberts "for his unremitting attention to the wounded under a heavy fire" during the fighting on the days previous to the investment of Sherpore. Surgeon Coates, I.M.D., also distinguished himself by the way in which he, in conjunction with Major Hills, of the 28th Punjaub Native Infantry, defended the native Field Hospital at Sherpore during the final attack and attempted escalade by the Ghazis. Surgeon Lentz, I.M.D., was likewise mentioned in despatches for his conduct under fire. On one occasion he had to cross a hill to attend to some wounded men, being exposed in his passage to a heavy fire the whole time. Similarly we record how Surgeon-Major Catkins, I.M.D., attended to the wounded in the fighting line. The above instances at any rate show that the surgeon is exposed to equal risks with those of his "combatant" brethren.

Again, Surgeon Simmonds, I.M.D., on the occasion of the march of reinforcements to aid Colonel Money when the Ghilzais were attacking him on the Shutargarden, took charge of the heliograph, and rendered essential assistance, as there was a paucity of signallers with the small column. This assistance was promptly acknowledged by General Roberts publicly thanking him before his regiment on the return march.

We must not omit to mention Surgeon Andrew Duncan, who was dangerously wounded at the time of the first assault on Cabul. This officer received his wound whilst standing by the side of General Baker, during the severest part of the engagement. We are pleased to be able to report that Dr. Duncan has now recovered from the effects of his wound, and that he was able to be present on Monday night at the Guildhall banquet. Others of the Medical Staff, however, were less fortunate. The death of Surgeon-Major Porter was one of the greatest losses incurred during the campaign; and the order published by Sir F. Roberts on the occasion fully testified how the officers and men had lost a friend whose skill was beyond question, and whose kindly disposition endeared him to all. A few days after Surgeon Porter's death Surgeon Keith died from pneumonia, the effects of constant exposure to the snow and frost during the anxious days of the investment of Sherpore. These facts, which only represent a tithe of the gallant and important services performed by the Medical Staff under Sir Frederick Roberts, testify, however, to the response given by this department to his just and generous treatment. In this respect the conduct of Sir Frederick Roberts stands in favourable contrast with that of many other general officers, who, after being greatly indebted to the indefatigable exertions of their Medical Staff, have subsequently ignored their claims for distinction or reward.

MEDICAL OFFICERS' MESSES.

We trust that the Army Medical Department will soon have clubs or messes in the various home garrisons. No arguments are needed to prove how valuable such establishments are to the *morale* of the Department. Quite apart from other advantages, the social intercourse of the medical officers with each other is very important. What has been done at Aldershot may be effected elsewhere, and we hope soon to be able to record the opening of similar institutions in our English garrisons. From small beginnings great things grow, and we hope the Secretary of State for War will do his part in aiding by a money grant these much needed Institutions.

NURSES FOR THE TRANSVAAL.

The War Office have arranged for the despatch of a lady-superintendent and three trained nurses from the Royal Victoria Hospital, Netley, by the mail steamer of the 18th, to Natal, for employment in the Base Field Hospitals. The Director-General, Army Medical Department, at the commencement of the Boer campaign suggested that a party of trained nurses should be sent to the Transvaal; but Sir George Colley decided that the ones he had engaged, locally assisted by the sisters from Bloemfontein, would be sufficient for the war. Now, however, that the campaign has assumed larger dimensions, an addition of thoroughly skilled and trained nurses will be a valuable accession to the medical staff.

A reinforcement of medical officers and Army Hospital Corps, with large supplies of medicine, surgical stores, equipments, and medical comforts, will be sent to the Transvaal by the troopships leaving early next week for Durban.

ARMY MEDICAL DEPARTMENT.—Brigade-Surgeon Andrew Semple, M.D., has been granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major Thomas Moriarty, M.D., has been granted retired pay; Surgeon Denis James O'Flynn, M.D., half-pay, resigns his commission.

Surgeon-Majors J. H. Robotham, J. Middleton, J. E. P. Aitchison, and Surgeon T. J. Gallwey, Army Medical Department, are on passage home from India in H.M. troopship *Malabar*.

Surgeon-Major C. Haines, A.M.D., has been ordered home to England on medical certificate for six months, and is pronounced unfit to do duty with troops on the voyage.

Surgeon-Major J. Cody, Bombay Medical Service, has been appointed secretary to the Surgeon-general with the Government of Bombay.

MILITIA MEDICAL DEPARTMENT.—Surgeon Thos. Wm. Spink Locke, West Suffolk Militia, to be Surgeon-Major.

ADMIRALTY.—Surgeon William Algeo has been promoted to the rank of Staff Surgeon in Her Majesty's Fleet, with seniority of 7th February, 1881. The undermentioned have been entered as Surgeons in Her Majesty's Fleet, with seniority of 2nd October, 1880:—William Joseph Christie, M.B.; John Jeffreys Dinnis, M.D.; George Frederick Wales; Malcolm Vincent Stace.

The following appointments have been made:—Staff Surgeon Thomas O. Sullivan to the *Duncan*, in lieu of a Surgeon; Staff Surgeon H. Beaumont to the *Arab*; Staff Surgeon Robert Grant to the *Champion*, temporarily; Surgeon G. H. S. J. Bankier, M.D., to the *London*, vice White.

ROYAL NAVAL ARTILLERY VOLUNTEERS (Liverpool Brigade).—William Little, Esq., to be Honorary Surgeon; Frank Thomas Paul, Esq., to be Surgeon.

THE LONDON FEVER HOSPITAL. — Lord Devon presided at the annual meeting of governors of this instituton, held last week at Freemasons' Hall. The report, read by Dr. Cayley, showed that 1011 cases of fever and diseases of a contagious character had been treated in the hospital during the year, but the amount of support afforded to the institution, notwithstanding the appeal made for funds, had been so small as to create fears that the future usefulness of the hospital might have to be curtailed. It is as remarkable as regrettable that the whole of the contributions for the year amounted to only £660. Mr. Hugh Owen, the hon. secretary, retired after twenty-three years' services, Mr. M. D. Chalmers being elected to fill the vacancy. Earl Devon was again elected president, and thanked for his services.

THE HUNTERIAN ORATION.

THIS biennial discourse in memory of John Hunter was delivered on Monday last in the theatre of the Royal College of Surgeons, by Mr. Luther Holden, late President of the College. The large theatre was crowded with members and visitors. The President, Mr. J. E. Erichsen, F.R.S., was in the chair, supported by the Vice-Presidents, Messrs. Erasmus Wilson and Spencer Wells, and most of the members of the Council.

Mr. Holden commenced his oration with the well-known words, "Let us now praise famous men and our fathers that begat us." He could find, he said, no better words than these wherewith to invite his audience to welcome the theme which had brought them together that day to do honour to the father of English surgeons, whose fame was so high that we but honoured ourselves in bearing witness before the world how much we honour him as loyal disciples in self-devotion and the pursuit of truth. Some natures, it was true, were disheartened by the contemplation of the great achievements of genius which mapped out the history of our race, and here and there an indolent man might be found who has buried his own talent because it was not ten. Though this temper of mind was happily rare in the profession of which his hearers were members, which daily brought them face to face with the painful aspects and emergencies of real life, it was nevertheless very desirable that they should always keep before them such brilliant examples of successful genius. To the striving and earnest man they were full of encouragement; not only did they urge him on the path of common duty, but they raised him, as it were, to an eminence from which he might overlook the past, and by seeing the results of the aspirations of his predecessors, assure himself of the reasonableness of his own. As English sailors were proud of Nelson, English soldiers of Wellington, English poets of Shakespeare, English physicians of Harvey, so were English surgeons proud of Hunter.

The orator proceeded:—"I shall claim from you some recognition of my especial attachment to my theme if I can contribute a new item of information towards that part of Hunter's history which is the most obscure. We are told by John Hunter's biographers, most of whom seem to have copied from each other an unpardonable inaccuracy, that John Hunter, the father, died when his son John was but ten years old, and that before and after that time, up to the date of his coming to London, he led a completely idle life, only broken into by a short and unsuccessful apprenticeship to a cabinet-maker in Glasgow, who had married his sister, and to whom he was sent for the purpose of helping him out of some embarrassment in his trade. His father was, we know, within two years of fourscore when he died; and the partiality which he must naturally have felt in his declining years for the high-spirited son of his old age is represented as the cause of his having dealt too leniently with him, to the neglect of his real interests. The outlines of the picture are easily sketched: up to ten years the darling of a decrepit father, after ten the pet of a widowed mother, spoilt, humoured, encouraged in idleness, unchecked, untrained, uneducated; such, I say, are the outlines, leaving a blank to be filled in according to the fancy of the biographers, who have rather dwelt upon this extraordinary contrast between the boy and the man—a contrast so complete and unintelligible that, if 'the boy is father of the man,' it requires a miracle to interpret it; and in the miracle lies some of the charm of their story. Thus one orator writes, 'He seems to have led the idle life of a wayward, petted boy until twenty years of age.' Another depicts him as having 'up to twenty years of age, passed a life of idleness, dissipation, and amusement, with no definite object, no settled employment—his highest occupation that of a cabinet-maker, and his education entirely neglected, threatening to destroy all stability of character and all capacity for sustained exertion.' And the same account is the *textus receptus* on the Continent. Thus Fischer, in his 'Chirurgie vor 100 Jahren,' says, 'Hunter was destined by his father to be a ship's carpenter, and in his twentieth year, when he came to his brother in London, he could scarcely read and write.' Again, one of the latest and the most eloquent of the Hunterian orators has thus expressed the same story:—'In the first twenty years of his life he appears to have had no inclination to science or to the arts that minister to it, or indeed to any intellectual pursuit. Had he succeeded in helping his brother-in-law, who was a bankrupt cabinet-maker, cabinet-making might have been the business of his life. Happily he failed; and then after two years more idleness, what was to be done?' Well, we all know what John Hunter *did*. He came to London to work under his brother William at anatomy; and the true history of the man, as he was known to his contemporaries, begins with the famous story of the dissection of the muscles of the arm, wherein he so satisfied Dr. William, at the very first outset, with his skill and proficiency, that he received at once the promise of his unlimited patronage, and in the very next year was engaged by him to prepare anatomical subjects for the public lectures, and to give instruction to the pupils. It is not necessary to point out to you, gentlemen, the significance of this fact, nor to remind you that it was not only the professional reputation of William Hunter, but even the advancement of anatomy in England, that was made over to John Hunter without hesitation....." Continued searches proved that John had received the same schooling as his brother, Dr. William Hunter, and that he had matriculated at the University of Glasgow in Nov. 1745. Mr. Holden was inclined to distinguish John Hunter the human anatomist, from the comparative anatomist, and to say that we had in him an admirable example of the method of the two studies, and of the manner in which they should both be pursued for the advancement of medical science. The term "comparative anatomy," strictly taken, included human anatomy, and if human anatomy had become a science on its own account it was due to the fact that when the anatomist investigated his own body the importance of the subject and the interest of his inquiries made this study paramount; and were it not for the unquestioned pre-eminence of man and the habit which he naturally had of considering himself the centre of the universe, this might scientifically be called an accident. After paying a tribute to the genius of Aristotle, the orator proceeded to speak of the anatomy of Galen and his school, and of all anatomists who preceded the Renaissance, as well as of many who lived to see the sciences reviving and revived. Comparative anatomy, he pointed out, actually stood in the way of human anatomy so as to obstruct it. Human bodies were so difficult to procure for dissection, and the study of them consequently was so rare, that the necessary observations were, as Aristotle said, supplemented from the dissection and investigation of the corresponding organs of the lower animals. As illustrating the relations of human and comparative anatomy, Mr. Holden stated that the physicians in attendance on the Margrave of Baden-Durlach, disputed among themselves as to the position of the heart in the thorax of the Prince, one of them contending, with Galen, that it lay in the middle, the rest being bold enough to affirm that it was on his left side. As this unfortunate doubt assumed the aspect of a serious practical difficulty when it came to determining the precise spot on which should be applied the plaster which was destined to relieve the sufferings of the Margrave, it was decided to appeal to nature. A pig was therefore brought into the royal chamber and opened in the presence of the sick man. The position of the heart was demonstrated to him; if in a pig, therefore in a prince. His highness gave way before this argument, and the plaster was placed accordingly; while the physician, who still had the temerity to defend himself by drawing anatomical distinction between man and pig, was dismissed from the court. In remarking on the teaching of the present day, as painfully illustrated by the large number of rejections of candidates by examining boards, Mr. Holden was unwilling to impute this entirely to the severity of the examiners or to the remissness of the students. After a feeling allusion to the deaths of certain members of the profession since the last oration was delivered, especially those of Mr. Henry Hancock, a former orator and president of the College, and of Mr. G. W. Callender, the orator concluded by dwelling on the advantage of a classical training for medical students, stating that as an old teacher he found those pupils who had received a good public school training could be taught more in two months than others in six. He urged that the youths who were to be the future representatives of English surgery should not be looked upon as "symbols" of an inferior education.

In the evening the President and Council entertained a

large and distinguished party at dinner in the library of the College. Among those present were the Lord Chancellor, Earl Granville, Sir R. Cross, the Bishop of London, the Dean of Westminster, and Mr. James Russell Lowell, the American Minister.

Correspondence.

"Audi alteram partem."

THE CHLOROTIC MURMUR.

To the Editor of THE LANCET.

SIR,—I regret that I erroneously associated Naunyn's name ith the chlorotic murmur. That the error is to some extent excusable is, I think, proved by the fact that such writers as Dr. Bristowe[1] and Dr. Fothergill[2] make the same mistake.

I unfortunately was not acquainted with the article in THE LANCET to which Dr. George Balfour refers me, or I certainly should not have mistaken his views as I have done. My statement of his views was based on the impression which I derived from the perusal of Chapter VI. of his "Diseases of the Heart." Taking that article as representative of Dr. Balfour's views, most readers would, I think, conclude, as I did, that he denied the arterial character of the basic murmurs in anæmia. His whole argument, as I read it, and the following passages in particular, tend towards that end.

"But if we can show, as I hope to do, that the cardiac portion of these murmur is not simply hæmic or purely functional in character, but is the product of an actual cardiac lesion, then we link blood disease with cardiac lesion in a very striking manner, and obtain the important pathological information that some cardiac lesions are certainly and permanently curable" (page 158). "But the venous murmurs which accompany chlorosis are for many reasons of very much less interest and importance than those heard in the cardiac area. As already mentioned these are systolic in character, and are most frequently heard in the pulmonary area, less frequently so in the aortic area, and most rarely in the mitral area" (page 159). "This so-called arterial murmur is, therefore, not arterial at all, but strictly auricular in its source" (page 160). . . . . "In all febrile diseases, whatever their character, the sequence of the phenomena, as observed by myself, has been precisely similar to that observed in chlorosis. That is: first, we have had the venous hum; second, the auricular murmur, propagated into the pulmonary and aortic areas, either as an impure or prolonged first sound, or as a distinct systolic murmur; and, lastly and more rarely, a systolic murmur in the mitral area" (page 168). . . . . "*The arterial murmurs are therefore not of independent origin* [the italics are my own], but are propagated from the mitral valve, which permits slight regurgitation between its segments, which are unable to close perfectly because the ventricular lumen is somewhat dilated" (page 169).

The exact mode of causation of the reduplicated second sound in cases of mitral stenosis is confessedly somewhat obscure. The very emphatic way in which Dr. George Balfour—for whose opinion on this and all subjects relating to the circulation I have great respect—expresses himself against the theory which I have adopted, makes me think that it is perhaps wrong. Still it is a view which is not without its weighty supporters. Thus Rosenstein, who writes the article on Mitral Stenosis in Ziemssen's "Cyclopædia,"[3] not only concludes that the aortic valves close before those of the pulmonary artery, but brings actual clinical proof of the fact, when he states, that the second portion of the reduplicated sound may be heard much more accentuated over the pulmonary artery than over the aorta. He says, "Geigel called attention to its frequency—(i.e., frequency of reduplicated second sound)—of occurrence in stenosis, and explains it by the unequal tension in the aorta and pulmonalis, which may prevent synchronous closure of the valves of the two vessels, since the aorta with its smaller contents contracts quicker, and thus closes its semilunar valves an instant before those of the pulmonary artery. The fact that the second part of the reduplicated sound may be heard much more accentuated over the ostium of the pulmonalis lends a great probability to the view that it is produced by the valves of this artery."

Sibson, too, in his elaborate article on Endocarditis in Russell Reynolds' "System of Medicine," in speaking of doubling of the second sound in connexion with mitral murmurs, says: "On the second day there was doubling of the second sound over that (i.e., the pulmonary) artery. The second sound was louder than the first, and this proved that the later sound was the pulmonic, the earlier the aortic, sound. In this instance the doubling of the second sound, which lasted to the 60th day, disappearing on the 69th, *was due, I consider, to the longer time occupied by the right ventricle than the left in emptying itself, owing to the resistance to the flow of blood through the lungs.*"[4] (The italics are my own.)

Hayden, in his work on "Diseases of the Heart and Aorta," states: "Where the second sound is reduplicated in connexion with mitral stenosis, the element deranged is most likely that produced in the pulmonary artery, the entire pulmonary system and the right chambers being engorged by obstruction at the mitral orifice. *In the effort to overcome this obstruction the systole of the right ventricle is protracted and the reaction of the pulmonary artery proportionately postponed.* (The italics are my own.) The reaction of the aorta is, on the other hand, in mitral stenosis, most probably anticipated where the left ventricle is reduced in capacity, as always is the case where mitral or aortic reflux does not co-exist. Hence it is likely that in simple mitral stenosis two causes of doubling of the second sound are in operation—namely, diminished capacity of the left and dilatation of the right ventricle."[5]

To some of the general statements I have in my lecture made, exceptions, of course, occur. Thus, for example, the tone of the same murmur may occasionally differ at two different parts of the chest wall; the inorganic murmurs of anæmia are sometimes associated with important disturbances in the heart and circulation, &c.

In speaking of the altered character of the first sound in mitral stenosis I say that it is due to the small amount of blood which gets into the left ventricle, and omit to mention as a cause the altered condition of the mitral cusps. Students who have attended my lectures, and who know that I am in the habit of teaching that the chief cause of the first sound is the tension of the auricular ventricular valves, will readily understand that this is an unintentional omission. Others might from the statement think that I am one of those who advocate the purely muscular, as opposed to the valvular, character of the first sound.

With these explanations I must leave the lecture to receive from the profession such measure of approval or disapproval as it may deserve.

I remain, Sir, yours very truly,

Edinburgh, Feb. 7th, 1881. BYROM BRAMWELL.

[1] The Theory and Practice of Medicine, p. 474.
[2] The Heart and its Diseases, p. 51.
[3] Ziemssen's Cyclopædia of the Practice of Medicine, p. 129.

ANIMAL LIGATURES.

To the Editor of THE LANCET.

SIR,—The interest so generally felt in this subject will, I trust, justify reference to two eminent authorities, one of which is probably not generally accessible to your readers. Professor S. D. Gross,[1] in his chapter on Diseases and Injuries of the Arteries, records that "animal ligatures were first introduced to the notice of the profession by Dr. Physick early in the present century, and they have ever since been occasionally employed by different practitioners, chiefly American." Luigi Porta teaches: "Amongst the substances applicable to the ligature of arteries, gut-cord is without doubt the strongest and the most homogeneous."[2] He gives the results of eighty experiments to bear out this statement, and expresses himself confidently on the absorption of the animal ligature.

I am, Sir, your obedient servant,

Birmingham, Feb. 12th, 1881. SAMPSON GAMGEE.

[4] Russell Reynolds' System of Medicine, p. 488.
[5] The Diseases of the Heart and Aorta, p. 129.
[1] System of Surgery. Fifth Edition (1872), vol. i., p. 670.
[2] Delle Alterazioni Patologiche delle Arterie per la Legatura e la Torsione, esperienze ed osservazioni di Luigi Porta, Milano 1845, p. 21 et seq.

THE UNIVERSAL HYSTEROPHORE.

To the Editor of THE LANCET.

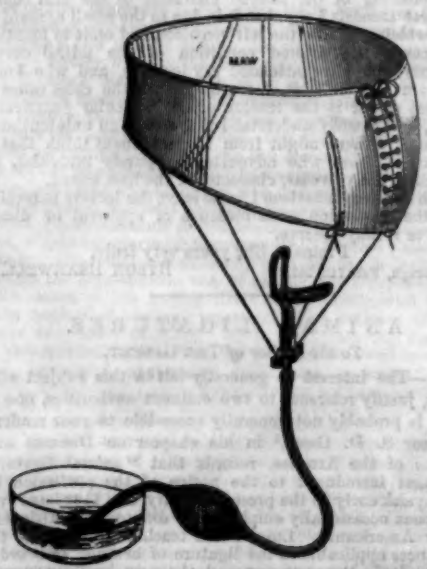
SIR,—I would ask a little space in your invaluable journal in reference to a hysterophore or pessary which I have had made by Messrs. Maw, Son, and Thompson.

I have been much disappointed with the pessaries in common use, and in some cases have found those which are considered the most efficient to be entirely useless, and in cases where they did prove of service, that they were very deficient in many most important points.

The hysterophore is made of vulcanite, and consists of a stem and two blades.

The stem is two inches and a quarter in length, with a tube running through the centre; to the upper end the blades are attached by hinges, which blades can be separated and approximated at pleasure by means of a screw, which forms part of the lower end of the stem. Around the lower end of the stem is a movable cylinder, through which pass two caoutchouc cords, one opposite the other. The blades are concave and elongated. Each blade has a large hole in the centre, which adds to the lightness, and permits the escape of injected fluids. One blade is two and a half inches in length, and one inch longer than the other, and is immovable. The shorter blade is of the same formation, and is so constructed that by the action of the screw in the stem it is made to approach or recede from the longer when desired.

The hysterophore, when closed, is lemon-shaped. The smaller blade, with its rounded edges, falls slightly into the concavity of its fellow. The cords are hooked on by means of strong elastic bands. Each band is perforated with three holes, each hole one inch apart, and through either of these the hook passes. The other ends of the cords are passed behind, and attached in like manner. To the lower end of the stem of the hysterophore the silver point of an india-rubber syringe can be attached, so that injections can be applied to the uterus and vagina at any time, without disturbing the hysterophore. The woodcut represents the syringe as attached to the instrument.



This instrument is made in three sizes; also a modification in three sizes, which is essentially the same, with two exceptions—viz., (1) the blades are of equal length, and (2) the blades are equally movable.

The instrument, as first described, is intended to rectify any flexion or version of the uterus. If there is anteflexion or version, this is rectified by introducing the hysterophore so that its long blade with its convex surface will be anterior. This blade that is fixed, and longer than the other, passes up in front of the cervix and body of the uterus, and thus raises the uterus to its natural axis in the pelvis, and is supported on the opposite side by the opposing blade. At the same time the cervix is free, and subjected to no undue pressure. In retroflexion or version the long blade is passed up in like manner over the posterior surface of the cervix and body, and similarly in the lateral displacements. The hysterophore, with its blades of equal length and mobility, is intended for prolapsus uteri.

I have found the advantages embodied in this hysterophore to be the following:—1. That by means of one instrument all displacements can be adjusted. 2. The instrument always presents a convex surface externally. 3. In marked cystocele or rectocele, more especially where the vulva is large and yielding, and in aged women where there is senile decay and general absence of adipose tissue, it will be impossible to get even a Hodge to act. 4. The attached elastic bands, which are hooked on in front and behind to the abdominal binder, yield at every movement of the body and inspiration, thereby permitting all natural movements of the uterus; thus avoiding all danger of violence, which unyielding supports would cause. 5. On account of the beveling of its edges, the instrument is free from the risk of nipping the parts in extraction. 6. By the use of the syringe injections can be thrown up so as to come in contact with the external surface of the uterus and internal surface of vagina, thereby keeping the parts healthy, and free from the offensive discharge, liability to inflammation, and ulceration. Where congestion and ulceration do exist with displacement, the hysterophore can be worn with comfort, and the uterus kept in its proper axis, while the curative treatment may proceed uninterruptedly.

I remain, Sir, yours faithfully,

JOHN MCG. MACCORMAC, L.R.C.P. & L.R.C.S. Ed.

Lindley, Huddersfield, Jan. 26th, 1881.

EDINBURGH.

(From our own Correspondent.)

AT a recent meeting of the Royal Medical Society a patient was shown on whom an interesting Taliacotian operation had been performed, with a successful result. About eight years ago the patient sustained a severe burn of the head, which destroyed the whole of the scalp, ear, and outer table of the right side of the cranium. In process of time the dead bone became removed; but owing to the great tension a satisfactory cicatrix could not form, and the young epidermis broke down and ulcerated continually. Skin-grafting on such an unhealthy surface was impracticable. To remedy this state of affairs the cicatrix was "rawed," two flaps were dissected from off the inner side of the upper right arm, and held in position with catgut sutures and collodion, while the arm was secured to the head and the whole incorporated in a suitable plaster-of-Paris apparatus. In eight days the flaps were cut free and the arm brought down. Subsequent progress was so satisfactory that the patient was exhibited with a soundly healed scalp, free from tension and with complete epidermic continuity.

It is stated that Dr. James Russell will be appointed Inspector of Anatomy, in place of the late Dr. Andrew Wood.

IRELAND.

(From our own Correspondent.)

DR. MACCABE, Local Government Board Inspector, in his half-yearly report in respect to the South Dublin Union states that he has long been of opinion that both the North and South Dublin Workhouses, in reference to the accommodation they afford, are quite inadequate for the requirements of the destitute poor within the city of Dublin and the surrounding electoral divisions. He adds that in the South Dublin Workhouse on the 1st of January last the number of inmates was 3489, so that the building contained 84 in excess of the number which could be properly accommodated, having regard to cubic space and the reservation of certain wards as day-rooms only. Of the total number of inmates about 2500 are hospital cases, and aged and infirm people, classes amongst whom a high mortality might be expected to prevail, yet the death-rate during the past six months

amounted to less than 33 per 1000, and was actually below the death-rate among the general population included in the Dublin Registration District during the same period. This fact, as Dr. MacCabe points out, affords striking evidence of the good sanitary condition of the workhouse.

In Kilmainham Small-pox Hospital there were 118 acute cases of this disease, and in addition 61 convalescent cases were received from the Hardwicke Hospital. Of the acute cases the mortality among those who bore vaccination marks was at the rate of 13·8 per cent., while of those in which vaccination marks were absent 90 per cent. died.

It has recently been urged in Belfast that a hospital for consumption and other pulmonary affections is much required in that town, in consequence of the large number of work-people engaged in flax-spinning, and who, from the nature of their occupation and their mode of life, are peculiarly liable to be attacked by phthisis. More especially is the want of an institution of the kind felt in consequence of a regulation of the Belfast Royal Hospital, which practically excludes phthisical patients—at all events, in the later stages of the disease—from the only general hospital in Belfast. This rule was adopted in consequence of the heavy expense of maintaining such patients, while the curative result was *nil*. It is true that a provident dispensary has been for some months in operation in Belfast, for supplying advice and medicine to applicants; but as there is no intern accommodation the amount of good done can only be of service in the very early stages of the disease. The Society for Providing Nurses for the Sick Poor has been of considerable use in these cases, and has visited and relieved many hundreds of phthisical patients.

A Local Government Board Inspector opened an inquiry at the Town Hall, Wexford, last week, in reference to the condition of the borough graveyards, it having been represented by the local medical officers that these burial-grounds were much overcrowded and dangerous to health. Dr. Pierce, sanitary officer, gave evidence to the effect that he had examined the several urban burial-grounds, that they were overcrowded, and that any further interments would be dangerous to the public health. The inquiry has been adjourned.

At a recent meeting of the Governors of Cork-street Fever Hospital, Dublin, the Registrar reported that although the number of admissions in typhus fever cases had steadily declined during the month of January, yet the disease was still very prevalent in the city and suburbs. Cases of small-pox are also again on the increase.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, 10th inst., a return relating to the superannuation of medical officers in Ireland was ordered to be printed. A petition was presented by Dr. Farquharson from the National Health Society against the proposed Guildford, Kingston, and London Railway.

On Friday Mr. Chamberlain stated to Mr. Ross that the Board of Trade were preparing a Bill dealing with the subject of druggists' measures. A petition was presented from the St. Saviour's District Board of Works praying for inquiry into the affairs of Guy's Hospital. Mr. Woodall brought in a Bill to provide for the better education of blind and deaf-mute children.

On Monday a petition for redress in connexion with the Indian Army Medical Department was presented from Arthur P. Holmes. A petition was presented from Athy Union, for alteration of the law of poor relief in Ireland. Mr. Tottenham gave notice that on Thursday he would ask the Chief Secretary to the Lord Lieutenant of Ireland, under what circumstances the claims of the Assistant Resident Medical Superintendents of the Irish Lunatic Asylums were overlooked in the recent appointment of the Resident Medical Superintendent of the Carlow Asylum; and whether the gentleman who received the appointment had any special qualifications justifying their supersession, or had ever served as an assistant in any lunatic asylum.

On Tuesday Sir William V. Harcourt, in answer to Mr. A. O'Connor, stated that a deaf and dumb boy, aged fifteen, who was sent to a reformatory in 1877 for five years, was now under instruction by an instructor sent from a deaf and dumb asylum.

On Wednesday the second reading of the Coroners (Ireland) Bill was further deferred to Friday.

Carlow Asylum.

On Thursday, in reply to Mr. Tottenham, Mr. Forster said the claims of none of the applicants for the appointment of Resident Medical Superintendent of Carlow Asylum were overlooked. They all received careful consideration, and the gentleman selected was already intimately acquainted with the asylum, from the fact of his having attended there during the official visits of his father, the late visiting physician, and having on several occasions discharged the duties of the late resident medical superintendent when that official was absent on leave. The question of the hon. and gallant gentleman seems to imply that some gentleman was superseded by the appointment that was made, but that was not the fact. The assistant resident medical superintendents have no claims to appointment as resident medical superintendent.

Obituary.

FERDINAND JENCKEN, M.R.C.P., &c.

ON the 5th inst. we briefly noticed the lamented death of this gentleman at Kingstown on Jan. 11th, caused by blood-poisoning in opening an abscess in the arm of a patient suffering from erysipelas.

Mr. Jencken had during his career been a contributor to several of our leading journals, his papers on "Atmospheric Dust" and "Modified Inoculation of Cow-pock for the Prevention of Rinderpest" having attracted attention at the time; whilst his treatises on "Cholera" and "Vaccination" may be consulted with advantage on these much-discussed questions. Early in life Mr. Jencken showed great aptitude for music, and whilst only eleven years old he dedicated a piece of his composition by permission to H.M. the Dowager Queen Adelaide. The deceased forms one of those instances which prove how much may be effected by mere determined industry. Born blind, and only partially able to use his sight after an operation for cataract, he persevered, and, despite the enormous disadvantage his physical defect entailed on him, not only obtained the Membership of the College of Physicians, but boldly entered into the sphere of literature, which it would have been thought needed eyesight to ensure success. Wiegand's "Birth of Man," the father of obstetric science, has been translated and annotated by Mr. Jencken, and was ready for the press at the time of his death; in addition, he has left a work on "Organic Life" as well as a translation of Madame de Staël's "Letters on England," which no doubt at some future day his family will place in the hands of the English public. We can but regret the loss of so valuable a member of our profession just at a period when he was ready to add to the literature of the day, garnered during years of study and experience—a further tribute to the great wealth of learning of which this century may be justly proud.

DR. JOHN DAVIDSON, C.B., INSPECT.-GEN. R.N.

DR. DAVIDSON died at his residence, Bosworth Lodge, Willesden-lane, on Jan. 31st, and was interred in the cemetery of Greenwich Hospital on the 5th inst., his funeral being attended by a number of his late brother officers.

The deceased gentleman entered the Naval Service in July, 1839, and was shortly after sent to China, where he was present at the captures of Canton and Chapoo, and throughout the operations on the Yangtse-Kiang river. In 1843 he was appointed surgeon to H.M.S. *Dido*, and in her served in Borneo. From 1850 to 1851 he was surgeon in charge of the Naval Hospital at Ascension, from which he returned with impaired health. At the commencement of the Russian war he was despatched to the charge of the Naval Hospital at Therapia, where he received promotion to the rank of Deputy Inspector-General in March, 1855, at the early age of thirty-eight years, continuing to serve there to the end of the war in 1857. His subsequent services were rendered at home, being Deputy Inspector of Haslar from 1859 to 1866, Inspector-General of Greenwich Hospital during 1867, and of Plymouth Hospital from 1868 to 1873, when he sought retirement from active service, on account of greatly impaired health, attributable to his duties.

Dr. Davidson was greatly esteemed in the Navy as a

skilful surgeon and a sound physician, and as a liberal, honest, and generous man.

GEORGE H. AITCHISON, M.D. EDIN.

DR. AITCHISON was born in Kilmarnock, in 1845, and gave promise of achieving great distinction as a physician in Scotland. During his period of study in the University of Edinburgh he took the first place in the Latin and Logic classes, whilst his fluency of speech and breadth of judgment made him conspicuous in the debating societies in connexion with his Alma Mater. After obtaining his B.M. and C.M., Dr. Aitchison commenced practice in Yorkshire, but he soon returned to Edinburgh and took the M.D. in 1878, becoming a Fellow of the College of Physicians in the same year. He had scarcely, however, laid the foundation of a prosperous career when the symptoms of his fatal malady appeared, and frustrated all his hopes. It is believed that a poisoned wound received in the practice of his profession was the exciting cause of an illness which, after two years of suffering, terminated his valuable life.

Medical News.

UNIVERSITY OF CAMBRIDGE.—The following gentlemen had conferred on them, on the 10th inst., the degree of M.B.:—

Young, Arthur, Cains College.
Nichols, Frederick Peter, St. Catharine's College.
Gover, Henry John, Trinity Hall.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Feb. 10th:—

Cranstone, William Lefevre, Barrington-street.
Partrige, William Stroud, Newhall-street, Birmingham.
Humphreys, William Carr, Bank House, Bromsgrove.

The following gentleman also on the same day passed the Primary Professional Examination:—

Jennings, Charles Egerton, London Hospital.

THE salary of Dr. Porter, medical officer of the Bow district of the Poplar Union, has been increased to £150 per annum.

MR. W. F. FULLER, late Assistant Medical Officer of the Parish of St. Marylebone, has received a superannuation allowance of £80.

THE 13th inst. was observed in Manchester as Hospital Sunday, when collections were made in all the churches and chapels of the town. The proceeds of the collection have not yet been made known.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—In the list of gentlemen who were successful in the second professional examination of the above, and which appeared in THE LANCET of February 5th, the name "F. G. Marchment" should have been F. G. Maidment.

RIVERS CONSERVANCY.—Mr. C. N. Cresswell is to read a paper on this subject before the Society of Arts on Wednesday next, the 23rd inst. The paper will deal principally with the three important topics of Floods Prevention, Rivers Pollution, and Water Supply.

CHARING-CROSS HOSPITAL.—It is satisfactory to learn, from the report of this institution read at the annual meeting of the governors on the 9th inst., that the special appeal to the public put forth in the past year met with a generous response. The result of the appeal has not, however, been ample enough to warrant the council in bringing again into use the thirty beds they were, some months ago, compelled to withdraw from the wards, the expenditure (£16,113) still exceeding the receipts by £2680.

ROYAL FREE HOSPITAL.—The report read at the annual meeting of the governors of this hospital, stated the receipts from all sources last year to have been £15,610, the ordinary expenditure £9367; whilst repairs and other improvements had involved an outlay of £6705. The number of in-patients had been 1360; 1242 had been discharged recovered, and 88 had died. A festival dinner in aid of the funds would, it was announced, take place in the ensuing spring.

LONDON TEMPERANCE HOSPITAL.—The new buildings of the London Temperance Hospital, in the Hampstead-road, will be opened on Friday, March 4th, by the Lord Mayor, who, with the Sheriffs of London and Middlesex, will attend in state. The buildings, when complete, will hold fifty in-patients.

LONGEVITY.—The obituary column of a contemporary, on the 10th inst., gives the deaths of four females, whose united ages number three hundred and ninety years, yielding an average of ninety-seven years and six months to each. Their respective ages were 93, 94, 99, and 104 years.

FRENCH HOSPITAL AND DISPENSARY.—The thirteenth annual dinner in aid of the funds of this institution was held on the 12th inst., when the French Ambassador, M. Challemel-Lacour, presided, and a distinguished company assembled. The Lord Mayor, as one of the executive of the Hospital Sunday Fund, bore testimony to the efficiency and economy of the management of the hospital, and the *réunion*, at its close, was voted an undoubted success.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. Mr. E. B. Noden, late of Brixton, bequeathed £1000 to the Manchester Royal Infirmary, £500 each to the Cancer Hospital, Fulham-road, and the Brompton Consumption Hospital, £300 to the Royal Hospital for Incurables, £250 to Miss Marsh's Convalescent Home at Brighton, and £200 each to the London Hospital and St. Mark's Hospital. The Leeds General Infirmary has received a legacy of £19 19s. from the late Mr. McConnochie, and £50 from the workpeople of Messrs. Briggs and Co.'s Collieries. The Belfast Hospital for Sick Children has received £50 from "Subscriber." Messrs. Guinness have given £60 to Steevens' Hospital; and the trustees of Bishop Stearne's charities have handed a donation of £60 to St. Mark's Ophthalmic Hospital, Dublin. By the will of Miss M. V. Durell, late of Oxford, the Radcliffe Infirmary becomes entitled to £300. Miss Farme, late of Edinburgh, bequeathed £500 to the Edinburgh Hospital for Incurables. Miss Isabella Still, late of Aberdeen, bequeathed £50 to the Aberdeen Royal Infirmary.

ST. MARK'S HOSPITAL.—The annual meeting of the subscribers to St. Mark's Hospital, in the City-road, was held on the 10th inst., at the Mansion House. The annual report stated that during the forty years the charity had been in existence more than 43,000 sufferers, of both sexes and of all ages, had sought relief from their distressing and painful maladies, the greater part of whom had been either cured or sufficiently relieved to enable them to resume their labours. Over 2000 patients annually received the benefits of the hospital. As the demands upon it continued to increase without a commensurate increase in its income, the committee hoped that the charitably-disposed public would aid them in carrying on the good and benevolent work, which, up to the present time, had been so successful. The committee of management were unhappily unable to speak very cheeringly of the financial state of the hospital, as this year again the accounts showed a deficit of £767 10s. 4d.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest*

ABBOTT, C. E., L.K.Q.C.P.I., M.R.C.S.E., has been appointed Medical Officer of Health to the Braintree Rural Sanitary Authority.

BLAKESLEY, H. J., M.R.C.S.E., has been appointed Assistant Medical Officer to the Leicestershire and Rutland Lunatic Asylum.

BLOMFIELD, Dr. A. G., House-Surgeon at the West Norfolk and Lynn Hospital, King's Lynn, has been elected House-Surgeon to the Devon and Exeter Hospital, vice H. Gordon Cumming, resigned.

BLOXAM, T. A., F.R.C.S.E., has been appointed Surgeon to Charing cross Hospital, vice Hird, appointed Consulting Surgeon.

BODDY, H. W., M.B., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Workhouse of the Prestwich Union, vice Buckley, resigned.

BUDD, S., M.D., F.R.C.P.L., has been appointed Consulting Physician to the Devon and Exeter Hospital.

CHEESBROUGH, H. A., M.D., has been appointed Honorary Consulting Physician to the Blackburn and East Lancashire Infirmary, on resigning as Honorary Physician.

CLARK, S., M.D., C.M., has been appointed Certifying Factory Surgeon for the District of Cullen.

CLARKE, W. B., F.R.C.S., has been elected Assistant-Surgeon [not Surgeon, as announced last week] to the West London Hospital.

COX, F. A., M.R.C.S.E., has been appointed Assistant Medical Officer and Chloroformist to the Hospital for Women and Children, Vincent-square.

DAVY, H., M.B., M.R.C.P.I., has been appointed Physician to the Devon and Exeter Hospital, vice Dr. Budd, resigned.

FISHER, T. J., M.D., M.Ch., has been appointed Medical Officer for the Fifth District of the Hackney Union.

HERSTED, E., M.D., M.Ch., has been appointed Surgeon to the Southampton Dispensary, vice Hobley, resigned.

HIGGINS, W. H., M.B. & C.M., M.R.C.S.E., has been appointed Medical Superintendent of the Leicestershire and Rutland Lunatic Asylum, vice J. Buck, M.R.C.S.E., deceased.

HIRD, F., F.R.C.S.E., L.R.C.P.Ed., has been appointed Consulting Surgeon to Charing-cross Hospital.

KEMPE, A. W., M.R.C.S.E., L.R.C.P.Ed., has been appointed Surgeon to the Exeter Dispensary, vice W. A. Budd, resigned.

LUBBOCK, Dr. M., has been appointed Assistant-Physician to the West London Hospital, vice Dr. J. M. Fothergill, resigned.

MOLYNEUX, J. L., M.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Upholland District of the Wigan Union.

MORGAN, J., F.R.C.S.E., L.R.C.P.L., L.S.A.L., has been appointed Medical Officer for the Workhouse of the Langport Union, vice Tims, resigned.

MORGAN, W., F.C.S., has been appointed Public Analyst for the Borough of Haverfordwest. £5 5s. per annum, and fees.

SETH, O., F.F.P.S.G., L.M., L.S.A.L., has been appointed Medical Officer for No. 9 District of the Brighton, Hove, and Preston Provident Dispensary, vice F. Blaker, resigned.

UPTON, A., M.R.C.S.E., L.R.C.P.L., L.S.A.L., has been appointed Medical Officer for No. 7 District of the Brighton, Hove, and Preston Provident Dispensary, vice H. C. Upton, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BARCLAY.—On the 5th inst., at Grantown, the wife of W. M. Barclay M.B., C.M., Edinburgh, of a daughter.

BOND.—On the 10th inst., at Delahay-street, St. James's-park, S.W., the wife of Thomas Bond, F.R.C.S., of a son.

COCKCROFT.—On the 10th inst., at Manor Lodge, Chislehurst, Kent, the wife of T. H. Cockcroft, M.D., of a daughter.

COOPER.—On the 9th inst., at South-hill-park, Hampstead, N.W. (the residence of her father, Luke Dowell Smyth, M.D.), the wife of the late Thomas Henry Cooper, M.R.C.S.E., of a posthumous son.

SMITH.—On the 11th inst., at Richmond-hill, the wife of Dr. R. Shingleton Smith, of a daughter.

WINSLOW.—On the 3rd inst., at Hayes-park, Middlesex, the wife of Henry F. Winslow, M.D., of a daughter.

MARRIAGES.

DOBSON—DOUGLAS.—On the 14th inst., at the residence of the bride's father, Edwin Francis Horatio Dobson, M.A., C.M., Her Majesty's Bengal Army, eldest son of Francis Horatio Dobson, of Happy Hall, Rangoon, Burmah, to Emily Ann (Emmie), fourth daughter of Thomas Douglas, of Airy Hall, Aberdeen.

JONES—SMITH.—On the 16th inst., at St. George's, Hanover-square, by the Rev. Frederick Smith (father of the bride), Thomas (Young) Jones, M.R.C.S.E., L.R.C.P.Ed., to Mary Agnes Coare. China and Australian papers please copy.

MASTER—MANBY.—On the 10th inst., at the Parish Church, Morecambe, by the Rev. M. N. Kearney, M.A., Canon of Elphin Cathedral, and Rector of Strokestown, co. Roscommon (brother-in-law to the bride), George Reginald, youngest son of Alfred Master, Esq., F.R.C.S. & J.P., of Norwich, to Emily Caroline, youngest daughter of the late Rev. E. F. Manby, Rector of Morecambe.

WALKER—DESHON.—On the 9th inst., at St. Michael's, Teignmouth, Ernest Octavius, son of G. J. Walker, Esq., of Brook Hill House, Teignmouth, to Rosa Eadie Anne, fourth child of the Rev. H. C. Deshon, M.D., Rector of East Teignmouth.

DEATHS.

ALTY.—On the 8th inst., at Birkdale, Southport, Lancashire, John Daniel Alty, M.R.C.S.E., late of Demerara, aged 69.

BARTLEY.—On the 6th inst., at St. Helier's, Jersey, John Metge Bartley, M.D., Surgeon on the Retired List of the Army Medical Department, and formerly of the 1st Dragoons and 59th Regiment, in his 94th year.

BIGSBY.—On the 10th inst., at Gloucester-place, Portman-square, John J. Bigsby, M.D., F.R.S., in his 89th year.

CRESSY.—On the 14th inst., at his residence, Bedford House, Gravesend, Theodore Grant Cressy, M.R.C.S.E., L.S.A.L., youngest son of the late Edward Cressy, Architect, of South Darenth, Kent, in his 51st year.

MASON.—On the 12th ult., at his residence, The Vinery, Wellington, Herefordshire, Thomas Mason, M.R.C.S.E., &c., aged 49.

TALBOT.—On the [illegible] ult., at St. Ann's Bay, Jamaica, Joseph Bindley Talbot, L.R.C.P.L., M.R.C.S.E., suddenly, of heart disease, aged 29.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, February 17th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radiation in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 11	29·01	N.W.	43	41	..	43	39	·13	Overcast
,, 12	30·01	N.	34	32	..	42	30	..	Bright
,, 13	29·98	S.W.	39	35	..	41	31	..	Bright
,, 14	29·78	S.E.	39	36	..	41	35	..	Overcast
,, 15	29·78	S.E.	40	38	..	44	36	·26	Raining
,, 16	29·93	S.E.	39	38	..	48	35	·06	Foggy
,, 17	29·98	N.E.	38	37	..	44	35	..	Foggy

Medical Diary for the ensuing Week.

Monday, Feb. 21.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; on Tuesday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8½ P.M. Mr. Samuel Osborn will show Two Cases of Hydrocele cured by Simple Tapping and subsequent application of Pulvermacher's Suspensory Bandage.—The President, Mr. F. J. Gant, will read a Case of Epithelioma of the Tongue; organ removed by Buccal Operation; both the specimen and the patient will be shown.—Dr. Gilbart Smith will exhibit Photographs of the Mechanical Means used by Dr. Lauder, of Stockholm, for Exercising Weakened Muscles.—The President may also show Gale, the Pedestrian.—Mr. Royes Bell will show a Specimen of the Tongue Removed by Nunneley's Operation.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. K. Parker, "On the Structure of the Skeleton in the Sauropsida."

Tuesday, Feb. 22.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 3 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Edward A. Schäfer, "On the Blood."

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. Spencer Wells, "On Two Hundred additional Cases, completing One Thousand Cases of Ovariotomy, with remarks on recent improvements in the operation."—Dr. George Thin, "On the Development of a Layer of Elastic Fibres in Duct Cancer of the Breast."

Wednesday, Feb. 23.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.

ST. MARY'S HOSPITAL.—Operations, 1½ P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

HUNTERIAN SOCIETY.—8 P.M. Introductory Address by the President.—Mr. T. E. Adams, "On Diphtheritic Ophthalmia."—Mr. G. T. B. Stevens, "On a Case of Erysipelas of the Scrotum and Penis."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor W. K. Parker, "On the Structure of the Skeleton in the Sauropsida."

SOCIETY FOR THE ENCOURAGEMENT OF ARTS, MANUFACTURES, AND SCIENCES.—Mr. W. H. Preece, "On Recent Advances in Electric Lighting."

Thursday, Feb. 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2½ P.M.

ROYAL INSTITUTION.—3 P.M. Prof. Pauer, "On Drawing-room Music."

Friday, Feb. 25.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Dr. J. S. Burdon Sanderson, "On Excitability in Plants and Animals."

CLINICAL SOCIETY OF LONDON.—8½ P.M. Dr. Hilton Fagge, "On a Case of Paralysis due to Partial Disease of the Nuclei of the Motor Roots of the Fifth Nerves."—Mr. Teale (Scarborough), "On a Case of Quiescent Scirrhus."—Dr. Crocker, "On Cases of Erythema Iris."—Dr. F. Taylor, "On Cases of Pemphigus and Herpes Iris."

QUEKETT MICROSCOPICAL CLUB.—8 P.M. Ordinary Meeting.

Saturday, Feb. 26.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. S. Poole, "On Ancient Egypt."

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

REGISTRARS AND UNCERTIFIED DEATHS.

WITH reference to cases in which the Registrar of Births and Deaths is in doubt whether a medical practitioner be registered or not, a correspondent asks whether a registrar cannot demand of the practitioner to see his certificate of registration. We are glad to say that neither the law nor the regulations issued to registrars by the Registrar-General give any such right or instruction to registrars. A registrar is, however, precluded from recognising as legal the certificates of, or from supplying forms of certificates to, any unregistered practitioner. It is therefore necessary sometimes to make a personal or written inquiry of a practitioner as to whether he is registered, but registrars are instructed "ordinarily to accept the statement of a medical practitioner that he is duly registered, but that in cases of doubt the circumstances must be reported to the Registrar-General for instructions." If any registered practitioner becomes aware that the written statements of an unregistered practitioner are being accepted as legal certificates, it is clearly his duty, both to the profession and to the public, to report the case to the Registrar-General. In the case of a deceased person, however, who has not been attended by a registered medical practitioner in his last illness, the registrar is acting strictly in accordance with his instructions, to accept the statement of the unregistered or unqualified practitioner for what it is worth, and to enter the cause of death in his death register as uncertified. In the present state of the law no other course is open to him, since the registrar is liable to a penalty if he does not register the death, and there is no possibility in such cases of getting a legal certificate, unless the local coroner should see fit to hold an inquest.

Dr. William Price.—We do not recommend, specially, physicians or surgeons for particular diseases.

Rickmansworth will not, we fear, readily procure what he desires except by specially advertising for it.

Mr. Geo. R. Barnes.—Application might be made to one of the nursing homes.

SMALL-POX AND VACCINATION.

Inquirer.—There is but one known protective against small-pox—vaccination. If a person has been efficiently vaccinated in childhood and efficiently revaccinated at or after puberty, he is as safe against the contagion of small-pox as he can possibly be rendered. Efficient vaccination and revaccination can be obtained without charge at the public vaccination stations. No known drug exercises the least degree of protective influence. A properly vaccinated nurse in a small-pox hospital who has contracted small-pox is, we believe, unknown. Our correspondent should write to the secretary of the Local Government Board and ask for a copy of the Board's Memorandum on Revaccination.

CASE OF SPINA BIFIDA AND TALIPES.

To the Editor of THE LANCET.

SIR,—On the 23rd October, 1880, I was called to attend Mrs. R——, Pimlico-road, in her fifth confinement (natural labour), but the child (male) malformed, with spina bifida and talipes. The tumour is the size of a small orange, reaching from the last dorsal to the fourth lumbar vertebra; it is slightly transparent, and discharges a little straw-coloured fluid. A gutta-percha cone is placed over the tumour to protect it. The child grows, and he is larger than most children for his age. In THE LANCET, 1871, you published a similar case of mine. The child died at four months, the tumour sloughing, and convulsions set in.

I am, Sir, yours, &c.,

Jan. 24th, 1881. FREDERICK T. COATES, M.R.C.S. Eng.

CURIOUS DISPUTE BETWEEN A MEDICAL MAN AND HIS ASSISTANT.

IN the Preston County Court a few days ago a somewhat remarkable claim was lately made by Mr. Charles Allen, an unqualified assistant, from Dr. Bowen, of Ribbledale-place, Preston. (The case is fully reported in the *Preston Herald*.) Mr. Allen had been engaged in November, 1879, as assistant for twelve months. This period passed over harmoniously enough, and, after some conversation, Mr. Allen understood that his principal was satisfied, and renewed the engagement for a similar time. But in December some unpleasantness arose in consequence of the assistant indulging in a fire in his bedroom, which filled the house with smoke. Defendant thereafter told plaintiff to take a month's notice. The plaintiff, adhering to the view that he was engaged for a year, refused to go, and had to be removed by four bailiffs and two policemen. He then took action in the county court to recover the sum of £20 as damages for a breach of contract. It was not maintained that there was any written contract. The judge, in a lengthy summing up, dwelt on the undesirability of verbal contracts, observing that much litigation would be avoided if contracts were always made in writing. He gave judgment for the defendant, but declined to allow the costs of witnesses.

ENURESIS.

To the Editor of THE LANCET.

SIR,—I assume that your correspondent has looked for and treated any peripheral source of irritation—e.g., any morbid condition of the urine, collections of smegma under a long prepuce, phimosis, ascarides in the rectum, and even examined for stone should he have thought the presence of one possible. None of these conditions being present, I recommend him to try belladonna in increasing doses, and to push the remedy perseveringly for two or three weeks if necessary. In those cases associated with dreams I have found bromide of potassium sometimes useful. I should restrict the patient to water as a beverage, order him to sleep on a mattress with the pelvis raised so as to direct the urine towards the fundus of the bladder, give a purgative once or twice a week, and make him urinate at regular intervals.

One meets with hereditary cases and cases among highly neurotic families that derive little benefit from any treatment, but who overcome the weakness as age advances. I believe this incontinence of urine is often associated with masturbation.

I am, Sir, yours, &c.,

Tufnell-park, N., Feb. 6th, 1881. HAYDON WHITE.

To the Editor of THE LANCET.

SIR,—In reply to the query put by "Ex Fide Fortis" in your last impression, allow me to mention the successful treatment that I have adopted with several young children—boys and girls—who used to habitually wet their beds. It is very simple. Withhold all flesh meat as food, and give good fresh cow's milk freely—e.g., three pints in the twenty-four hours for a child from three to four years of age, and this besides the regular meals. Breakfast consists of stale whole-meal bread and milk; supper the same; dinner (at 1 P.M. or 2 P.M.), potatoes and gravy, with half a pint of milk, and half a pint of milk to be given midway between breakfast and dinner. In troublesome cases a hot bath should be given morning and night, and in all cases the bed should be well warmed before the child is placed in it. Flannel should be worn next to the skin day and night, and the child should be invited to micturate at stated times, and should be taught "to call" the nurse not less frequently than every two or three hours. In only one case out of ten during the past few months have I been compelled to prescribe any medicinal remedy.

I am, Sir, yours, &c.,

BERNARD O'CONNOR, M.D., M.R.C.P. (Lond.).

Brook-street, W., Feb. 9th, 1881.

To the Editor of THE LANCET.

SIR,—In reply to the request of your correspondent "Ex Fide Fortis," I beg to state, in the treatment of the above complaint, I have usually found the liq. ferri perchloridi, combined with tinct. nucis vomicæ, in doses of twenty minims each or less, according to age, invariably beneficial. I think he will do well to give this remedy a trial.

I am, Sir, yours faithfully,

St. Faith's, Norwich, Feb. 7th, 1881. J. HAWKES, M.D.

To the Editor of THE LANCET.

SIR,—In answer to "Ex Fide Fortis," I may state that during the past two years I have had several cases of this unfortunate complaint as well as an old fisherman (nearly eighty), who could not sleep for the urgency of frequent micturition, all of which were cured by the use of that old-fashioned remedy, tinct. mur. ferri (alias tr. sesquichlor. fer.) in small doses, well diluted with water. In the last-mentioned case it was combined with tinct. fol. hyoscyam.

I am, Sir, yours most respectfully,

J. C. REID, M.D., Medical Officer of Health.

Newbiggin-by-Sea, Feb. 9th, 1881.

*** Many other letters on this subject have been received, in which the writers recommend remedies similar to those mentioned above.—ED. L.

SULPHUR IN WOOL AND IN HAIR.

IN reference to a paragraph in our issue of Feb. 5th on this subject, Mr. J. Lawrence-Hamilton, of Gloucester-terrace, Hyde-park, writes:—"According to the analyses of Frémy and Peloune, hair contains about 5 per cent. of sulphur, and wool roughly about 2·3 per cent. of sulphur, which quantities of sulphur are returned again from the wool to the soil, after the wool has been worn out in the form of clothes, in the shape of the so-called shoddy-manure, whilst the hair derived from the head of human beings finds its way through the dust-bin and dust-cart to the manure-heap, and thence once more to the earth. Thus no appreciable sulphur waste can occur. In other ways, as by the use of artificial superphosphate manures, enormous quantities of sulphate of lime are supplied to the soil, and in far larger proportions than are removed by the growth of wool and hair. Further, the value of wool and hair as manures does not depend alone upon the contained sulphur, but indeed almost entirely to the contained nitrogen, which in wool and hair manures amounts usually to upwards of 17 per cent."

Medical Student can have no difficulty in obtaining all the information he requires on the subject named. We cannot give any special directions, nor can we conceive that, under the circumstances, they are needed.

G. A.—We regret that we have been unable to trace the communication.

SALICYLATE OF QUININE IN NEURALGIA.

To the Editor of THE LANCET.

SIR,—In March and April last year I had the honour to report to you the good results I had obtained from the use of salicylate of quinine in rheumatic and gouty affections, particularly in subacute and chronic cases. These results have been maintained to even a greater extent than I could have anticipated. Many patients continue to have recourse to it when necessary, and recommend it to their friends far and wide.

I said then that I was not aware what the result might be in acute cases, as I had not had any opportunity of so testing it. Since that time, however, I have been favoured with opportunities such as I desired, and I have now to report that salicylate of quinine has not in my hands proved successful in truly acute cases.

But my special purpose in this communication is to make a note of the value of salicylate of quinine in neuralgia. Many, indeed, are the remedies which have been employed in the treatment of the array of these, so to say, non-pathological disorders, which are conveniently enough grouped and set forth under this term. Gelseminum in doses of twenty to thirty minims has a splendid effect, and there are others; but I beg to note here particularly the masterly action of salicylate of quinine in neuralgia in doses of six grains.

I am, Sir, your obedient servant,

Feb. 14th, 1881. ARCHIBALD HEWAN.

EDUCATION OF BLIND AND DEAF-MUTE CHILDREN.

A BILL for the Better Education of Blind and Deaf-Mute Children, prepared and brought into the House of Commons by Mr. Woodall, Mr. Benjamin Williams, and Mr. Montague Scott, has just been printed. It provides that, on the application of the parents, boards of guardians may send a blind or deaf-mute child to school, who may be retained there till the age of eighteen years. Provision is made for children being received into schools established in connexion with the religion to which their parents may happen to belong. To the Local Government Board is reserved the power, under certain circumstances, to order the removal of such afflicted child from school.

Sanitary.—The question put is a legal one, and should be addressed to a journal dealing with legal questions—e.g., the *Local Government Chronicle*.

Enquirer.—Too late for this week.

Medical Student.—The extension proposed was tried in the army for four years, and the drawbacks were found greatly to exceed any benefit from it. We cannot, therefore, recommend it.

POISONING BY HYDROCHLORIC ACID.

To the Editor of THE LANCET.

SIR,—Perhaps you may think the following notes worthy of a place in your columns:—On September 20th, 1879, I was called to see a woman who had taken three ounces or more of hydrochloric acid, having disagreed with her husband. I was called in three or four hours after she had taken it. I at once gave her magnesia, chalk, and olive oil. She had vomited a short time before my arrival a dark-brownish fluid, and continued to do so for some hours. Milk was given with soda-water and opium, and turpentine applied over the abdomen; also calomel and opium pill was prescribed, to check the inflammation. Gastritis and enteritis followed three days after taking the acid. A great deal of pain for some time remained in the stomach, which was relieved with bismuth and opium, also copper and opium. The patient quite recovered after six weeks.

I am, Sir, yours, &c.,

Jan. 24th, 1881. FREDERICK T. COATES, M.R.C.S.E.

THE GENERAL MEDICAL COUNCIL.

THE remarks of Dr. Fergus at the special meeting of the Council last week were, by an error of the reporter, wrongly attributed to Dr. Scott Orr.

DESQUAMATION AFTER SCARLET FEVER.

To the Editor of THE LANCET.

SIR,—The questions asked under this heading by a correspondent in THE LANCET of Feb. 12th are of very considerable practical importance. I do not write to offer an opinion upon the particular subject matter of those letters, but I ought not, I think, to withhold on such a fitting opportunity whatever information I may be able to communicate through your columns upon the several strictly medical points involved.

My experience of scarlatina is pretty wide, and, so far as this part of its symptomology is concerned, amounts to this:—1. That in slight attacks of the disorder desquamation of the cuticle is often delayed, sometimes remarkably so. In one instance within my own knowledge, that of a young lady fifteen years of age, the desquamation was not perceived, although daily sought for, until the fifth week from the beginning of her illness. Very fortunately, the patient had meanwhile been strictly isolated from the other members of the family.

2. That in the treatment of scarlatina it is unwise to make any distinction between slight and severe attacks of the disorder. Altogether apart from the question of infection, there is to the patient suffering from a mild attack positive risk to life from exposure within at least the first five weeks, and some of the worst cases of albuminuria and dropsy I have seen were of children suffering from attacks of the fever of such mildness as to hardly deserve the name.

3. That in the matter of sanitary precautions against the dissemination of infection, it is utterly wrong to permit any scarlatinal patient whatever to mingle with the healthy until the expiration of eight weeks from the beginning of the illness, and, in those cases where the desquamation of the cuticle is of late appearance, until this process is completed, and for a fortnight afterwards.

I cannot now enter into details, but if I may be permitted I would refer to my pamphlet on the subject (Facts about Fevers, second edition. Maclachlan and Co., Edinburgh; Simpkin and Marshall, London) for evidence in support of these conclusions. I am glad to express my approbation of the step your correspondent has taken in referring this matter to the columns of a medical journal. Much more harm than good is the almost inevitable result of an appeal to the readers of a general newspaper and the public, even the so-called educated and reading public—ever too ready to seize upon any teaching which errs on the side of laxity, and enables it to dispense for its selfish ends with such proper but tedious sanitary precautions.

Your well-merited censure upon the mischievous nonsense which was lately attempted to be promulgated in the columns of a leading contemporary upon this same subject of scarlatinal infection must have been gratifying to any experienced member of the profession.

Kendal, Feb. 12th, 1881. DAVID PAGE, M.D.

To the Editor of THE LANCET.

SIR,—I beg to send you the following facts of the case alluded to in the correspondence under the above heading, published in your last issue:—

On the 16th December, two days before the boys were leaving for the Christmas vacation, one of their number (who had been visiting elsewhere a few days previously) was found to be suffering from scarlatina. He was at once removed to the infirmary, and I gave instructions that all the others should be closely watched and examined previous to allowing them to return to their homes.

On the following night I was sent for to see the boy referred to in the letter of "Enquirer." I examined him, and found his pulse, temperature, and tongue normal, but fancied I detected (as the matron had previously done) a slight suspicious eruption appearing about the shoulders; the fauces, too, looked a little inflamed, though the lad hardly admitted that he felt any soreness of the throat.

Under all the circumstances, I deemed it prudent to have him isolated, and he was consequently removed to the infirmary. From that time the symptoms were never more marked; on the contrary, on the following day the boy was as well as ever he was. However, in order to avoid all risk, I had him kept to the infirmary for three weeks, and examined him myself frequently to the last for any desquamation of cuticle, of which at no time were there any signs whatever. During the last ten days he had, by my direction, many baths and anointings; and, after complete purification, he left here in entirely fresh clothing (that which he had previously worn being retained to be disinfected) to rejoin his friends.

I believe his father expressed dissatisfaction at his being sent from here so soon, thinking it unsafe but, seeing that the boy has enjoyed perfect health, and that no other persons have suffered from his presence among them, I fail to see what charge I am called upon to answer. Indeed, I feel confident that you, Sir, as representing the opinion of the profession, will consider that in the action taken by me I showed a due regard for the health of the boy and the safety of the public.

As for the desquamation (!) which is said to have been discovered six weeks after he came under my care, it is more likely due to eczema (from which I am given to understand the lad has previously suffered) than the result of scarlatina, which my experience goes to prove immediately follows the attack.

I am, Sir, yours faithfully,

Feb. 14th, 1881. THE MEDICAL ATTENDANT OF THE COLLEGE.

VACCINATION BY UNQUALIFIED PRACTITIONERS.

A CORRESPONDENT asks whether in case of an unqualified practitioner vaccinating and filling up certificates of successful vaccination, the Registrar-General would interfere. The Registrar-General has no authority for securing the efficient operation of the clauses of the Compulsory Vaccination Acts. Primarily the vaccination officer, who is not always or even often a registrar, would be at fault for accepting a certificate of successful vaccination from any but a registered medical practitioner; and any complaint against a vaccination officer concerning the performance of his duties should be addressed to the Local Government Board. Registrars have certain duties to perform in connexion with the Vaccination Acts, but unless they happen to be also vaccination officers they have nothing to do with the registration of successful vaccinations, and in that capacity they are under the control of the Local Government Board, which is the central authority in vaccination matters.

PAYMENT OF MEDICAL OFFICERS TO ODDFELLOWS' SOCIETIES.

To the Editor of THE LANCET.

SIR,—In reference to the above, I think your correspondent, Mr. Hart, well paid according to the fees received in my district. I have an Oddfellows, Foresters, and Shepherds society, each of which, when I obtained them, paid me the handsome sum of 2s. 6d. per head per annum, which was afterwards, on my application, raised to 3s., but, owing to want of funds, the Oddfellows have reduced it to 2s. 6d., at the same time the following expression being used in the lodge-room:—"There are other doctors in the district who will be glad to take it at that," and to which I add, "Yes, and canvas the members to obtain it." But Mr. Hart's words are true, "the payment is preposterously small, but as there are plenty of medical men ready and willing to accept this small sum, it will have to remain until there is some unity amongst us and a general demand for higher fees." Of course a small amount of private practice does accrue from attendance upon the members' families, but I find in a great many cases that they do not send for their club doctor.

I am, Sir, yours faithfully,

Feb. 14th, 1881. ANOTHER CLUB DOCTOR.

To the Editor of THE LANCET.

SIR,—The answers to your correspondent, Mr. F. D. Lys' letter, on the above subject, in THE LANCET of January 22nd, give such a very wrong impression that I feel justified in asking space for this letter.

Several years ago a meeting was held at Melton Mowbray, at which the medical men practising in that neighbourhood discussed the question of club pay, and unanimously decided to take no Oddfellows at less than 5s. per member per annum. It was also decided to stop the practice of examining candidates for admission into these clubs gratis, and 2s. 6d. is now charged for the examination. It was further decided that tradesmen, innkeepers, and others who were believed to be able to pay the usual fees for medical attendance should not be received on the surgeon's club-list; and it was further understood—and, as far as I know, honourably carried out—that any person who had been refused admission by one man, because able to pay the usual private patients' fees, should not be accepted on the club-list of another. I think the question of charging for attendance in cases caused by intemperance, &c., opens too wide a field for dispute; I prefer exercising the right of crossing off the club-list any such individual.

I agree with Mr. Hart that unity amongst us is very desirable, but the courage which prompts and decides an independent demand for higher fees, where those received are acknowledged to be "preposterously small," is much more desirable.

I am, Sir, yours respectfully,

Somerby Oakham, Feb. 7th, 1881. JOHN JACKSON.

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Deutsche Medizinal Zeitung, Westminster and Chelsea News, Aberdeen Journal, Day and Night, Children's Treasury, Weston Mercury, Preston Herald, Gazzetta degli Ospitali, Barmondsey and Rotherhithe Advertiser, Staffordshire Daily Sentinel, Hackney and Kingsland Gazette, Sanitary Engineer, La Reforma Medica, Exchange and Mart, &c., have been received.

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